



Board of Trustees  
15 Estabrooke Drive  
Orono, ME 04469

Tel: 207-581-5840  
Fax: 207-581-9212  
[www.maine.edu](http://www.maine.edu)

March 10, 2019

TO: Members of the Board of Trustees  
Faculty and Student Representatives

FR: Ellen N. Doughty, Clerk of the Board

RE: **May 2019 Board Meeting**

The University of Maine

University of Maine  
at Augusta

University of Maine  
at Farmington

University of Maine  
at Fort Kent

University of Maine  
at Machias

University of Maine  
at Presque Isle

University of  
Southern Maine

Enclosed are the materials for the **Board of Trustees Meeting on Sunday and Monday, May 19-20, 2019**, hosted by the University of Maine at Augusta. Directions are included in the Board meeting materials. Parking is available in Randall Student Center parking lot closest to the main entrance.

***The Board Meeting materials are available on the Diligent portal, for those who have access, and in PDF format on the Board of Trustees website at: [www.maine.edu/UMStrusteesmeetings](http://www.maine.edu/UMStrusteesmeetings)***

***Live audio streaming will be available for the Board meeting on Sunday and Monday. The links to the live streaming and the captioning are on the Board of Trustees website at: [www.maine.edu/board](http://www.maine.edu/board).***

**All Meeting Times Can Be Found on the Agenda of the Board Meeting Materials**

**On Sunday, May 19<sup>th</sup>**, the Board meeting will be called to order in Room 218, Randall Student Center, at which time the Board will go directly into an Executive Session. After Executive Session concludes, the public Board meeting will reconvene in the Fireside Lounge, Randall Student Center, with a meeting with the UMA Board of Visitors. A reception is scheduled directly after the Public meeting concludes, in the Katz Library, followed by dinner on the Campus Green.

**On Monday, May 20<sup>th</sup>**, the Board meeting will be called to order in the Randall Student Center, Fireside Lounge with an opportunity for continental breakfast and networking before starting the public meeting.

Meeting rooms have been reserved for the Faculty & Student Representatives if they would like to meet in their respective groups. The Faculty Representatives can meet in Room 248, Randall Student Center. The Student Representatives can meet in Room 250, Randall Student Center.

Overnight accommodations for those that have requested, have been reserved and hotel information is being emailed to attendees individually.

Incoming messages can be left with the UMA President's Office at 621-3041 or with Heather Massey at 991-4724 or Ellen Doughty at 949-4905.

In the event of a postponement, cancellation, or changes in the Board of Trustees meeting, a message will be recorded on the Board Office cell phone (991-4724). In addition, every effort will be made to personally contact the Board of Trustees, the Presidents, and the Faculty and Student Representatives.

cc: Chancellor James H. Page  
University Presidents  
System Staff



## **Directions to the University of Maine at Augusta**

### **From North**

- Take I-95 South to exit 112. Bear left at the fork and proceed onto Route 27 (New Belgrade Road/Civic Center Drive).
- At the second intersection, beneath the Augusta Civic Center marquee, turn immediately right onto Community Drive.
- Turn immediately left onto University Drive, and continue straight.
- Proceed on University Drive through the intersection. University Drive will lead you along a curved road to the back of a large parking lot. Parking is available to visitors here.

### **From South**

- Take I-95 North to exit 112A.
- Exit right onto Route 27 (New Belgrade Road/Civic Center Drive). Proceed through the exit light.
- At the very next intersection, beneath the Augusta Civic Center marquee, turn right onto Community Drive.
- Turn immediately left onto University Drive. Continue straight.
- Proceed on University Drive through the intersection. University Drive will lead you along a curved road to the back of a large parking lot. Parking is available to visitors here.



University of Maine System – Board of Trustees Meeting  
**May 19 & 20, 2019**

at the University of Maine at Augusta  
Randall Student Technology Center  
Fireside Lounge

**AGENDA**

Faculty Representatives meeting – Room 208, Randall Student Center  
Student Representatives meeting – Room 250, Randall Student Center

(These rooms will be available starting at 1:00 pm on 5/19/19 and all day on 5/20/19)

**Sunday, May 19, 2019**

**Call to Order @ 1:00 pm**

The Board of Trustees will go directly into Executive Session

**Executive Session** from 1:00 pm to 4:30 pm – Room 218, Randall Student Center

**Call to Order/Reconvene Public Meeting @ 5:00 pm** – Randall Student Center, Fireside Lounge

**BOT/BOV meeting @ 5:05 pm**

Tab 1 - [Meeting with UMA BOV](#)

**Reception @ 6:00 pm** – Katz Library (Cash Bar)

*(By Invitation Only)*

**Dinner @ 7:00 pm** – Tent on Campus Green

*(By Invitation Only)*

**Monday, May 20, 2019**

**Coffee & Networking @ 7:30 am**

**Call to Order/Reconvene @ 8:00 am**

**Citizen Comment**

*The Board of Trustees provides time for citizen comment prior to the business agenda at each meeting. The Chair of the Board will establish time limits (usually three minutes per person) and determine any questions of appropriateness and relevancy. Personnel decisions, collective bargaining issues, grievances, litigation and other areas excludable from public discussion under the Maine Freedom of Access Law shall not constitute appropriate matters for such input. A person who wishes to speak during the citizen comment period should arrive prior to the meeting start time and sign up on a sheet provided, indicating name and topic of remarks.*

**Chair's Report (20 minutes)**

- Chancellor Search Committee Update

**Chancellor's Report (30 minutes)**

- Legislative Update (10 minutes)
- Chancellor Remarks (20 minutes)

**Vice Chancellor for Finance and Administration & Treasurer's Report (30 minutes)**

Tab 2 - [Financial Update](#)

Tab 3 - Multi-Year Financial and Structural Gap Analysis

**Vice Chancellor for Academic Affairs' Report (45 minutes)**

Tab 4 - Academic Initiatives Update

**Action Items (total of 60 minutes)**

Tab 5 - Acceptance of Minutes

Tab 6 - Election of Board Officers

Tab 7 - Confirmation of Faculty & Student Representatives to the Board of Trustees

Tab 8 - Confirmation of Board of Visitor Appointments

Tab 9 - FY2020 Proposed Unified Operating & Capital Budget and Student Charges

Tab 10 - Resolution for Samuel W. Collins

Tab 11 - Resolution for James H. Page

Tab 12 - Resolution for John N. Short

**Consent Agenda (5 minutes)**

May 3, 2019 Finance, Facilities, Technology Committee Meeting [Ryan/Chip]

Tab 13 - Naming of Facility, UMPI

Tab 14 - Space Reduction Budget Request, UMS

May 15, 2019 Academic & Student Affairs Committee Meeting [Bob/Rosa]

Tab 15 - New Academic Program Proposal: MS in Special Education, UMF

Tab 16 - New Academic Program Proposal: Doctorate in Occupational Therapy, USM

**Lunch Break (20 minutes)** (Timing of the lunch break will be at the discretion of the Chair)

**Strategic Priorities Discussion Topics (total of 90 minutes)**

Tab 17 - One University (goal 4, action 1) and System-wide Communication (goal 4, action 2)

Tab 18 - Maine Center Ventures Progress Update (goal 1, action 3)

Tab 19 - Biomedical Engineering and Data Science Programing (goal 3, action 2)

Tab 20 - Micro-Credential Report and Recommendations (goal 1, action 4)

Tab 21 - Increasing Affordability & Reducing Student Debt (goal 2, action 3)

Tab 22 - Financial Model for Academic Responsiveness (goal 3, action 1.2)

**Date of the Next Meeting:** July 15, 2019 at the University of Maine hosted by the University of Maine System

**Executive Session** directly following public meeting – Room 218, Randall Student Center

**Attachments:**

UMA BOV Membership List (*Confidential*)

Financial Update

- Managed Investment Pool
- Pension Fund
- Operating Fund
- Current Fiscal Year-to-Date Forecast to Budget

Multi-Year Financial and Structural Gap Analysis

FY2020 Budget Materials

Proposed Changes to Board Policy 305.1 – Program Approval, Review & Elimination Procedures

Naming of Facility, UMPI – Background Materials

Space Reduction Budget Request, UMS – Background Materials

New Academic Program Proposal: MS in Special Education, UMF – Background Materials

New Academic Program Proposal: Doctorate in Occupational Therapy, USM – Background Materials  
Micro Credential Report & Recommendations  
Agenda Calendar  
2019 BOV Master List of All Members by Campus (*confidential*)  
2019 BOV Master List of Narratives for Proposed Candidates (*confidential*)  
Data Science for Biomedicine in Maine: Recommendations for Convergent Science Initiatives  
Student Debt Report

**Reports:**

UMS Interactive Dashboard  
Workforce Profile  
Turnover Report  
Capital Project Status Report

- Executive Summary
- Capital Project Status Report
- Capital Project Status Report – Bond Report

One Year Capital Plan  
2019 UMS Research and Development Plan  
2018-2019 UMS Program Innovation Fund (PIF)

**Presentations:**

FY2020 Budget Presentation  
Maine Center Venture Report Presentation  
MYFA Presentation  
Biomedicine & Data Science Presentation

Tabs noted in red text are action items.

Note: Times are estimated based upon the anticipated length for presentations or discussion of a particular topic. An item may be brought up earlier or the order of items changed for effective deliberation of matters before the Board.





## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Meeting with UMA Board of Visitors
2. **INITIATED BY:** James H. Page, Chancellor
3. **BOARD INFORMATION:** X **BOARD ACTION:**
4. **OUTCOME:** **BOARD POLICY:**  
102 Charter, Section 4B.5
5. **BACKGROUND:**

The Board of Trustees (BOT) and the Boards of Visitors (BOV) for the universities are collaborating to increase engagement. The BOT/BOV partnership increases advocacy and adds value for UMS, our students and the State.

One aspect of this engagement is a regularly scheduled meeting of the BOT with the local BOV when the BOT meets on a campus. Members of the UMA BOV will meet with the BOT for a discussion of campus BOV strategic goals and concerns.

Attachment:

[UMA BOV Membership List for 2018-2019](#) (confidential)

5/09/19



## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Financial Update
2. **INITIATED BY:** James H. Page, Chancellor
3. **BOARD INFORMATION:** X **BOARD ACTION:**
4. **OUTCOME:** **BOARD POLICY:**  
Enhance fiscal positioning
5. **BACKGROUND:**

Vice Chancellor for Finance and Administration and Treasurer Ryan Low will provide a brief financial update at the May 19-20, 2019 Board of Trustees meeting.

Attachments:

[Managed Investment Pool Flash Reports](#)  
[Pension Fund Flash Reports](#)  
[Operating Fund Flash Reports](#)  
[Current Fiscal Year to Date Forecast to Budget](#)

5/9/2019



## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Multi-Year Financial and Structural Gap Analysis
2. **INITIATED BY:** James H. Page, Chancellor
3. **BOARD INFORMATION:** X **BOARD ACTION:**
4. **OUTCOME:** Enhance fiscal positioning **BOARD POLICY:** Policy 701 – Operating & Capital Budgets
5. **BACKGROUND:**  
  
Vice Chancellor Ryan Low will present an update of the Multi-Year Financial Analysis for fiscal years 2020 – 2024.

Attachment:

[Multi-Year Financial and Structural Gap Analysis](#)

5/9/2019





## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Academic Initiatives Update
2. **INITIATED BY:** James H. Page, Chancellor
3. **BOARD INFORMATION:** X **BOARD ACTION:**
4. **OUTCOME:** All Primary & Secondary Outcomes **BOARD POLICY:** 305.1 – Program Approval, Review & Elimination Procedures
5. **BACKGROUND:**

Three items will be presented in the Vice Chancellor for Academic Affairs' update to the May, 2019 Board of Trustees meeting.

1. The Vice Chancellor for Academic Affairs (VCAA) is recommending revisions to Board of Trustees (BOT) Policy, Section 305.1 and its associated administrative procedures to meet the deliverable in the BOT's *Declaration of Strategic Priorities* "to work with senior academic leadership to propose appropriate approval process(es), procedures, and structure that foster rapid, responsible program development, deployment, and evaluation."

The administrative procedures to Section 305.1 took effect in 1987 and was last revised in 2010; additionally, the accompanying program proposal form has not been updated since 2001. With modern analytical capabilities available to the UMS today (e.g., Burning Glass technology), new possibilities exist for streamlining processes currently mandated by BOT policy. Thus, three significant changes to Section 305.1 are recommended: (a) revision of the program inventory to include due consideration by the Chief Academic Officers Council for all academic programs beyond just majors and degree programs, i.e., the revised inventory would include all concentrations, minors, associate degrees, and credit-bearing certificates; (b) elimination of the current Intent-to-Plan process, to be superseded with an abbreviated request and market analysis consultation with UMS institutional researchers; and (c) elimination of mandatory external review for any new degree program.

2. Programs for Examination (PFE) – The first year of the new PFE process is concluding with presentations from each university Provost regarding their experience with the PFE process, communication strategies, and specific program recommendations from their campuses. The Provosts from the University of Maine at Augusta (Dr. Joe

Szakas), the University of Maine at Farmington (Dr. Kathy Yardley), and the University of Maine at Fort Kent (Dr. Tex Boggs) will be presented at the May, 2019 BOT meeting, with the remaining campus presentations occurring at the July, 2019 BOT meeting.

3. Program Innovation Fund (PIF) - The Chief Academic Officers Council (CAOC) met on April 4, 2019 to evaluate the 2018-2019 UMS 2018-2019 Program Innovation Fund proposals. In addition to expectations for collaboration and innovation, this year's criteria aligned closely with the Board of Trustees priorities involving Maine workforce needs, adult degree completion, and credentials of value. Other evaluation criteria included opportunities for enrollment growth, feasibility and expediency, and the reasonableness of the budget request.

The PIF process began in the Fall, 2018 semester with the submission of twenty pre-proposals for consideration by the CAOC, fifteen of which were invited to move forward to the full proposal stage, with 12 full proposals ultimately being received for evaluation in April. On the basis of the CAOC's evaluation and deep discussion, eight of the 12 full proposals were selected for full or partial funding. The eight successful proposals will be presented to the Board of Trustees.

Attachment:

Proposed Changes to Board of Trustee Policy 305.1 – Program Approval, Review & Elimination Procedures



## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Acceptance of Minutes
2. **INITIATED BY:** James R. Erwin, Chair
3. **BOARD INFORMATION:** **BOARD ACTION:** X
4. **OUTCOME:** **BOARD POLICY:**
5. **BACKGROUND:**

The following minutes will be presented to the Board of Trustees for approval at the May 19—20, 2019 Board meeting:

March 19, 2019 – Finance, Facilities, Technology Committee Meeting  
March 24-25, 2019 – Board of Trustees Meeting  
May 8, 2019 – Human Resources & Labor Relations Committee  
May 8, 2019 – Special Board Meeting

The Board of Trustees website link to the minutes is: <http://www.maine.edu/about-the-system/board-of-trustees/meeting-minutes/>

6. **TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees approves the minutes as presented.

5/09/2019



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## AGENDA ITEM SUMMARY

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1. **NAME OF ITEM:** Election of Board Officers
2. **INITIATED BY:** Trustee Betsey Timm, Chair, Trustee Nominating Committee
3. **BOARD INFORMATION:** **BOARD ACTION:** X
4. **OUTCOME:** **BOARD POLICY:**  
Bylaws – Article II, Section 2.1
5. **BACKGROUND:**  

The Board Chair appointed the following Trustees to the Trustee Nominating Committee:  
Betsey Timm, Mark Gardner and David MacMahon

The Committee will propose a slate of officers at the annual meeting in May.
6. **TEXT OF PROPOSED RESOLUTION:**  

That the Board of Trustees approves the Board of Trustees slate of officers for 2019-2020, as presented.

05/9/19



## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Confirmation of Faculty & Student Representatives to the Board of Trustees
2. **INITIATED BY:** James H. Page, Chancellor
3. **BOARD INFORMATION:** **BOARD ACTION:** X
4. **OUTCOME:** **BOARD POLICY:**  
Policy 205 - Faculty & Student Representatives to the Board of Trustees
5. **BACKGROUND:**

To create the environment for interaction among and between Faculty and Student Representatives, the Trustees and System administration, the Trustees have provided opportunities for participation in the meetings of the committees of the Board.

One faculty member and one undergraduate student from each of the seven universities and one graduate student from the University of Southern Maine and one graduate student from the University of Maine will be appointed by the Board as non-voting representatives to the Board of Trustees and invited to participate as non-voting members on the standing committees.

Normally, the representative is expected to complete a two year term; therefore, it is an expectation that the minimum term of service by Faculty and Student Representatives to the Board be two years. The nominations will be forwarded through the Presidents to the Chancellor for submission to the Board for Trustee approval.

The following nominations is being recommended by the President:

### Faculty Representatives:

Patti Miles, UM - reappointed for one year term - May 2019 to May 2020

Timothy Surette, UMA – reappointed for a two year term – May 2019 to May 2021

Matthew Bampton, USM – reappointed for a two year term – May 2019 to May 2021

### Student Representatives:

Dawn Johnson, UMM – appointed for a two year term – May 2019 to May 2021

Hunter Alexis Chelsey, UMA – appointed for a two year term – May 2019 to May 2021

Abigail Pooler, UMFK – appointed for a one year term – May 2019 to May 2020

## 6. **TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees approves the appointments of the Faculty & Student Representative to the Board of Trustees as presented.

REVISED – 5/15/19



## AGENDA ITEM SUMMARY

8

1. **NAME OF ITEM:** Confirmation of Boards of Visitors' Appointments for 2019-2020

2. **INITIATED BY:** James H. Page, Chancellor

3. **BOARD INFORMATION:** **BOARD ACTION:** X

4. **OUTCOME:** **BOARD POLICY**  
University of Maine System Charter

5. **BACKGROUND:**

In accordance with the University of Maine System Charter, each Board of Visitors consists of up to 20 members recommended by campus Presidents and confirmed by the Board of Trustees. Membership should reflect the mission of the university and the region it serves. Boards of Visitor appointment recommendations from the Presidents are outlined in the attached biographical sketches distributed to the Board of Trustees.

Campuses may contact the potential candidate(s) to determine his/her interest prior to submitting the name(s) to the Clerk's Office. The list of proposed members may be larger than the number of seats the President intends to fill, understanding that this is the list from which they will draw to extend invitations.

6. **TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees confirms the Boards of Visitors' appointments for 2019-2020, as presented.

Attachments:

[2019 BOV Master List of All Members by Campus](#) (*confidential*)

[2019 BOV Master List of Narratives for Proposed Candidates](#) (*confidential*)

05/9/19



## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** FY2020 Proposed Operating & Capital Budget and Student Charges

2. **INITIATED BY:** James H. Page, Chancellor

3. **BOARD INFORMATION:**

**BOARD ACTION: X**

4. **OUTCOME:**  
Enhance fiscal positioning

**BOARD POLICY:**  
Policy 701 – Capital Budgets

5. **BACKGROUND:**

Vice Chancellor Ryan Low, will present the FY2020 Proposed Operating & Capital Budget and Student Charges for the University of Maine System.

The Finance, Facilities and Technology Committee approved this item to be forwarded for Board of Trustee approval at the May 19-20, 2019 meeting.

6. **TEST OF PROPOSED RESOLUTION**

That the Board of Trustees accepts the recommendations of the Finance, Facilities and Technology Committee and approves the FY2020 Proposed Operating & Capital Budget, Recommended Student Charges, and proposed Transfers from Institutional Reserves including Budget Stabilization Funds.

Attachment:

[FY2020 Budget Materials](#)

5/9/2019



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## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Resolution for Samuel W. Collins
2. **INITIATED BY:** Trustee James Erwin, Chair
3. **BOARD INFORMATION:** **BOARD ACTION:** X
4. **OUTCOME:** **BOARD POLICY:**
5. **BACKGROUND:**

Mr. Samuel W. Collins has served as a Trustee for the University of Maine System since March 24, 2010 and will complete his second term on May 26, 2019. Trustee Collins served as Chair of the Board from 2013-2017 and Vice Chair of the Board from 2011 to 2013.

He has been a long standing member of the Executive Committee, Finance, Facilities, Technology Committee and the Human Resources and Labor Relations Committee. While serving as Vice Chair and Chair of the Board, Trustee Collins was an ex-officio member of all Board Committees.

Trustee Collins has served as one of the UMS Trustee representatives on the BOT/BOV Executive Committee since 2015 and has represented the Board of Trustees at every commencement since 2011. He served as Chair of the UMPI Presidential Search Committee in 2011, a member of the Chancellor Search Committee in 2012 and is currently serving as Chair of the Chancellor Search Committee.

He has especially left his mark through his leadership in developing the Board of Trustees Goals and Actions in 2012, the Board of Trustees Strategic Outcomes in 2014 and the recent Board of Trustees Declaration of Strategic Priorities to Address Critical State Need.

### 6. **TEXT OF PROPOSED RESOLUTION**

A resolution for Board approval will be presented at the May 19-20, 2019 Board of Trustees meeting.

5/9/2019





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## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Resolution for James H. Page
2. **INITIATED BY:** Trustee James Erwin, Chair
3. **BOARD INFORMATION:** **BOARD ACTION:** X
4. **OUTCOME:** **BOARD POLICY:**
5. **BACKGROUND:**

Dr. James H. Page was appointed Chancellor by the University of Maine System Board of Trustees in March 2012.

Prior to becoming Chancellor, Dr. Page was principal and CEO of the James W. Sewall Company, a national consulting organization founded in 1880 and headquartered in Old Town, Maine, specializing in forestry, natural resources, civil and spatial engineering.

Page is the first University of Maine System Chancellor to be born in Maine or to have been educated at one of the System's universities. He was born and raised in Caribou, and obtained his BA in History from the University of Maine at Fort Kent. Subsequently he completed Master's work in the philosophy of physics from St. Andrews University, Scotland, and obtained his Ph.D. in the philosophical foundations of mathematics from Massachusetts Institute of Technology. He taught at several universities before joining the private sector and has served on a number of Boards in the public, private, and non-governmental organization sectors.

During his seven years of public higher education leadership and service, he restored the financial stability of the System and achieved a nation-leading commitment to affordability of Maine students and their families. The One University framework developed under his leadership to guide Maine's public higher education reform has become a national model of engagement and strategic change. Chancellor Page oversaw a six-year tuition freeze, consolidated administrative functions across the campuses, saved more than \$80 million in annual expenses, and made historic investments in student financial aid.

Dr. James H. Page will retire from the position of chancellor of the University of Maine System effective June 30, 2019.

### 6. TEXT OF PROPOSED RESOLUTION

A resolution for Board approval will be presented at the May 19-20, 2019 Board of Trustees meeting.

5/9/2019



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## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Resolution for John N. Short
2. **INITIATED BY:** Trustee James Erwin, Chair
3. **BOARD INFORMATION:** **BOARD ACTION:** X
4. **OUTCOME:** **BOARD POLICY:**
5. **BACKGROUND:**

Dr. John N. Short has served as the President of the University of Maine at Fort Kent since April 2016. Dr. Short's successful career in public higher education spans more than forty years with experience as both a faculty member and an administrator. Prior to his position at the University of Maine at Fort Kent, he served as the CEO and Dean of the University of Wisconsin-Fond du Lac where he oversaw operations and academics at the freshman-sophomore level liberal arts transfer institution serving approximately 700 students within the University of Wisconsin System.

During his tenure at UMFK, he completed the campus ten-year master plan, upgraded classroom technology to create state-of-the-art learning spaces and distance education facilities, and increased endowed scholarships through the UMFK Foundation. President Short oversaw the development of initiatives that strengthened partnerships throughout the community and across the UMS campuses including collaborations with UMPI that have sustained local access to critical programming and strengthened capacity for resource sharing and deployment. President Short expanded the nursing enrollment by 53% over the last five years and UMFK has lead the state in the delivery of early college programming by increasing participation by 161% since 2015.

Dr. Short will retire from the position of president at the University of Maine at Fort Kent effective June 30, 2019.

### 6. **TEXT OF PROPOSED RESOLUTION**

A resolution for Board approval will be presented at the May 19-20, 2019 Board of Trustees meeting.

5/9/2019



## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Naming of Facility, UMPI
2. **INITIATED BY:** James H. Page, Chancellor
3. **BOARD INFORMATION:** **BOARD ACTION:** X
4. **OUTCOME:** Enhance UMS Fiscal Positioning **BOARD POLICY:** 803 – Naming of Physical Facilities
5. **BACKGROUND:**

This is a request pursuant to Board of Trustees Policy 803 to name a facility at the University of Maine at Presque Isle as “The Zillman Family Greenhouse.”

This is a new facility, approved previously by Trustees, for which ground was broken in April 2019. The maximum authorized budget for this project stands at \$935,000.

For details about the facility, its anticipated use and the benefits to students, faculty, researchers and industry, a prior agenda sheet associated with the Board’s approval of the project is included in the meeting materials. This current request is focused on the naming of the facility.

Board of Trustee Policy 803 reserves the naming of facilities to the Board of Trustees. In addition to other information intended to guide the naming of facilities, the policy states, in part, that facilities may be named for any individual, living or dead, except for current employees or current members of the Board of Trustees and provides that facilities may be named for, or on the recommendation of, a major contributor to the cost of the facility. A contribution equivalent to at least 25 percent of the project cost is suggested for a naming gift for a physical facility.

The Board has, on occasion, exercised its authority to deviate from or act in exception to its established policies or guidelines. As an example of such a circumstance, the naming of the Paul J. Mitchell Batting Pavilion at the University of Maine was authorized in 2012 when Mr. Mitchell was a sitting trustee.

In the current instance, the naming of the facility is in connection with a gift from Linda G. and Donald N. Zillman, who are gifting \$110,000 for this project. The gift agreement includes the naming commitment.

Professor Zillman, among numerous other achievements, is the former President of the University of Maine at Fort Kent, the former President of the University of Maine at Presque Isle and is currently the Edward S. Godfrey Professor of Law at the University of Maine School of Law. Mrs. Zillman, a published art history author, has been a supporter of and active in Maine's arts community, among other accomplishments. The Zillmans have previously supported other UMS initiatives and the UMS mission. These efforts include but are not limited to the establishment of The Donald & Linda Zillman Scholarship and the Matisse Zillman Scholarship at the University of Maine at Presque Isle, as well as the Don and Linda G. Zillman and Families Professorship Fund at Maine Community Foundation for the benefit of the University of Maine at Presque Isle.

The Finance, Facilities and Technology Committee approved this recommendation to be forwarded to the Consent Agenda for Board of Trustee approval at the May 19-20, 2019 Board meeting.

**6. TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees approves the recommendation of the Finance, Facilities and Technology Committee to authorize the naming of the greenhouse facility at the University of Maine at Presque Isle to be known as "The Zillman Family Greenhouse," subject to review and approval of the final naming determination and the fulfillment status of the underlying gift agreement by General Counsel and the University Treasurer.

Attachment:

[Naming of Facility, UMPI background material](#)

5/9/2019



## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Space Reduction Budget Request, UMS
2. **INITIATED BY:** James H. Page, Chancellor
3. **BOARD INFORMATION:** **BOARD ACTION:** X
4. **OUTCOME:** **BOARD POLICY:**  
Enhance UMS Fiscal Positioning 701 – Budgets-Operating & Capital
5. **BACKGROUND:**

This is a request to proceed with the effort to constrain facility growth and reduce the space occupied by the University of Maine System (UMS) with the ultimate goals of better positioning the UMS to recruit and retain talented students, staff and faculty and to provide affordable, quality higher education.

This is a request to authorize funding for the further removal by demolition of facility space statewide as approved by the Board of Trustees in principle in January 2018.

Trustees in January 2018 approved an initiative to seek out and to help fund the removal by demolition as much as 300,000 gross square feet (GSF) of vacant, under-utilized, poorer condition space or otherwise surplus space. Planning has continued since that time.

Additional briefings with Trustees have occurred, including in January and March 2019. The recent briefing from March 2019 is included here for additional background.

As part of the current phase, an initial group of 27 demolition projects totaling approximately 181,000 GSF of space that have been proposed by campuses in response to the Trustee's initiative. These projects have previously been described for Trustees.

This request is for funding of the initiative. Any individual project of sufficient scope or scale to warrant Trustee consideration pursuant to the customary capital project approval procedures will additionally be considered per those procedures.

The Finance, Facilities and Technology Committee approved this recommendation to be forwarded to the Consent Agenda for Board of Trustee approval at the May 19 -20, 2019 Board meeting.

**6. TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees approves the recommendation of the Finance, Facilities and Technology Committee and authorizes the University of Maine System to expend up to \$3.4 million from the Trustees' Strategic Investment Funds during FY2020 and FY2021 for the reduction by demolition of University facility space statewide.

Attachment:

[Space Reduction Budget Request – Background Info](#)

5/9/2019



## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** New Academic Program Proposal: Master in Special Education (UMF)
2. **INITIATED BY:** James H. Page, Chancellor
3. **BOARD INFORMATION:** **BOARD ACTION:** X
4. **OUTCOME:** **BOARD POLICY: 305.2**  
Relevant Academic Programming - Substantive Changes to  
Existing Academic Programs
5. **BACKGROUND:**

The University of Maine at Farmington (UMF) is seeking permission to offer a Master of Science in Education (M.S.Ed.) in Special Education. As described in the proposed program, a shortage of Special Education teachers exists in Maine, which was also confirmed by a UMS-level analysis of workforce demand. The proposed program includes an accelerated 4+1 track for students to earn both their bachelor's and master's degrees in Special Education at UMF, as well as adding a new dimension to the graduate programming at UMF. Given UMF's strong foundation and long history of education and expertise in Special Education, the proposed program fits the mission of UMF, and serves as a pathway for helping UMF attract new students, as well as meeting a documented need in the State of Maine.

The proposal was reviewed at all appropriate faculty and administrative levels at UMF, and was endorsed by the Chief Academic Officers Council at their 14 April, 2019 meeting. Given the upcoming recommendations for changes to Board of Trustee policy from my office to streamline program approval processes, the Vice Chancellor for Academic Affairs is requesting for an exception to UMS Board of Trustees policy requiring external review of the proposal because the workforce analysis through the UMS Burning Glass license supports the demand for the program.

This item will be discussed at the May 15, 2019 Academic and Student Affairs Committee meeting, and if approved the Committee it will be forwarded to the Consent Agenda for Board of Trustee approval on May 19-20, 2019 Board meeting.

### 6. **TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees approves the recommendation of the Academic & Student Affairs Committee and authorizes the creation of the Master in Special Education for the University of Maine at Farmington.

Attachment:

[New Academic Program Proposal: MS in Special Education, UMF background materials](#)

5/9/2019



## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** New Academic Program Proposal: Doctorate in Occupational Therapy, USM
2. **INITIATED BY:** James H. Page, Chancellor
3. **BOARD INFORMATION:** **BOARD ACTION:** X
4. **OUTCOME:** **BOARD POLICY: 305.2**  
Relevant Academic Programming - Substantive Changes to Existing Academic Programs
5. **BACKGROUND:**

The University of Southern Maine is proposing to offer a doctorate in Occupational Therapy (OTD) at their Lewiston Auburn College. The intention is to offer two tracks leading to the doctorate: the entry level OTD and the post professional OTD to bridge students from the current master's in occupational therapy to the doctorate. The primary rationale behind this request is that the accrediting body for occupational therapy (Accreditation Council for Occupational Therapy Education – ACOTE), is moving toward a requirement for a doctorate as the entry degree to practice in the discipline. Although the timeline for meeting this requirement has been extended by ACOTE, the need for such a program is clear and will be a forthcoming requirement. As written, the proposal seeks to offer a post-professional OTD to meet the needs of students who are entering, or have entered, the profession of occupational therapy. To date, the only competitors in Maine are Husson University and the University of New England. The proposal documents strong interest in this program by current students, and an internal UMS workforce analysis confirms the need for occupational therapists in Maine and across the country.

The Vice Chancellor for Academic Affairs (VCAA) is requesting an exception to UMS Board of Trustees policy to waive the requirement for external review of the proposal. The rationale for this request is:

- a. ACOTE standards are quite prescriptive about program content and clinical experiences for the OTD. Review and reaccreditation by ACOTE will amply serve as external review.
- b. UMS analyses of job market demand support the need for occupational therapists in Maine.



- c. The wavier of mandatory external review is consistent with the VCAA's pending recommendation to the UMS Board of Trustees as a means to expedite development of programs meeting a workforce need.

With respect to procedure, the lead-up to this proposal included approval of an Intent-to-Plan in June, 2018 by the Chief Academic Officers Council (CAOC) and the VCAA, adherence to USM and UMS curricular approval processes, including a recommendation from the USM Faculty Senate, support from President Cummings and Provost Uzzi, approval by the CAOC, and a recommendation of approval from the VCAA to the Chancellor. Given the current master's degree in occupational therapy at USM, the existing faculty and other resources are sufficient to support this program without funding from the UMS and the program will be self-supporting.

This item will be discussed at the May 15, 2019 Academic and Student Affairs Committee meeting, and if approved the Committee it will be forwarded to the Consent Agenda for Board of Trustee approval on May 19-20, 2019 Board meeting.

## **6. TEXT OF PROPOSED RESOLUTION**

That the Board of Trustees approves the recommendation of the Academic & Student Affairs Committee and authorizes the creation of the Doctorate in Occupational Therapy for the University of Southern Maine.

Attachment

[New Program Proposal - Doctorate in Occupational Therapy, USM - Background Materials](#)

5/9/2019



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## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** One University (goal 4, action 1) and System-wide Communication Presentation (goal 4, action 2)
2. **INITIATED BY:** James H. Page, Chancellor
3. **BOARD INFORMATION:** X **BOARD ACTION:**
4. **OUTCOME:** All Primary and Secondary Outcomes **BOARD POLICY:**
5. **BACKGROUND:**

In December 2019, the University of Maine System Board of Trustees issued a *Declaration of Strategic Priorities to Address Critical State Needs*. Among other provisions, the UMS Trustees state:

“As deemed necessary to successfully execute the actions directed herein, UMS and campus leadership will accelerate the transition to One University organizationally, systemically, and culturally to facilitate resource allocation and investments across UMS that best achieve these outcomes.”

“UMS must raise public awareness and the aspirations of Maine citizens with sustained strategic communications about the actions undertaken pursuant to this Declaration, the benefit to students and the Maine economy of the further evolution of One University initiatives, and the value of higher education generally.”

At the May 19-20, 2019 Board of Trustees meeting, the Chancellor will outline recommendations regarding budgetary, organizational, or structural changes that may be necessary to achieve the required deliverables, remain competitive, and meet critical State needs in a resource-limited environment. This will include strategic internal and external communication plans for implementing all One University recommendations.



## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Maine Center Ventures Progress Update (goal 1, action 2)

2. **INITIATED BY:** James H. Page, Chancellor

3. **BOARD INFORMATION:** X

**BOARD ACTION:**

4. **OUTCOME:**

**BOARD POLICY:**

Primary Outcomes:

- Increase enrollment
- Improve student success and completion
- Enhance fiscal positioning
- Support Maine through research and economic development

Secondary Outcomes:

- Relevant academic programming
- University workforce engagement

5. **BACKGROUND:**

Maine Center Ventures CEO Terry Sutton will present a progress update for the Maine Center for Graduate and Professional Studies. This presentation will cover the following topics:

- Progress toward meeting Harold Alfond Foundation benchmarks
- Budget and fundraising activities
- Branding and marketing activities
- Recently launched analytics project – job market, appropriate programmatic response, competitive landscape
- Academic programming (*tbd*)
- Workforce development and business engagement efforts
- Proposed renderings of a new building to house Maine Center programming

Attachment:

[Maine Center Ventures Presentation](#)

5/9/2019



## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Biomedical Engineering and Data Science Programming  
(goal 3, action 2)

2. **INITIATED BY:** James H. Page, Chancellor

3. **BOARD INFORMATION:** X

**BOARD ACTION:**

4. **OUTCOME:**  
All Primary and Secondary Outcomes  
Declaration of Strategic Priorities to Address  
Critical State Needs

**BOARD POLICY:**

5. **BACKGROUND:**

In December 2019, the University of Maine System Board of Trustees issued a *Declaration of Strategic Priorities to Address Critical State Needs*. Among other provisions, the UMS Trustees state:

“UMS will demonstrate academic responsiveness by establishing interdisciplinary programs with innovative pedagogies that prepare students to engage in key areas emerging for the growth of Maine’s digital economy.”

At the May 19-20, 2019 Board of Trustees meeting, the Presidents of the University of Maine and University of Southern Maine will present specific recommendations for programmatic innovations in the areas projected to be key to the future of the workplace in Maine and beyond -- specifically, data science (including artificial intelligence and machine learning), biomedical engineering, and health-related biosciences and genetics.

NOTE: Report is for reference only. University leadership will be reviewing recommendations for possible action.

Attachment:

[Data Science for Biomedicine in Maine: Recommendations for Convergent Science Initiatives](#)

5/13/2019 - REVISED



## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Micro Credential Report and Recommendations  
(goal 1, action 4)
2. **INITIATED BY:** James H. Page, Chancellor
3. **BOARD INFORMATION:** X **BOARD ACTION:**
4. **BACKGROUND:**

As stated within the UMS Board of Trustees Declaration of Strategic Priorities to Address Critical State Needs (Goal 1, Action 4), “in collaboration with existing businesses, non-profits and community partners, UMS will develop coordinated workforce micro-credentials that are relevant in the workplace for economic development and expansion.” This Report focuses on the critical components of framework and recommendations which can build the platform upon which this initiative can grow within the UMS and across the state. The “state of the art” is such that substantial foundational work will need to be completed which expands connections and dialogue about credential development to employers and other partners and which builds more understanding and adoption of the concept of micro credentials within the UMS. While internal (UMS) and statewide conversations have begun around the development of an aligned micro credential “ecosystem,” those conversations are very much in the beginning stages.

Initiatives across the country are focusing on the development of micro-credentials that represent the attainment of critical skills and competencies of need for the workforce – both those that are considered 21<sup>st</sup> Century skills (the so called “soft” or foundational skills) and those that are more technical in nature. The Report and Recommendations of the Micro Credential Steering Committee presents a framework for micro credential development in the UMS and potentially statewide, along with a set of implementation recommendations including the identification of appropriate program delivery modalities and credential development, priority external partnerships, timelines and budget considerations. Ultimately, the goal is to implement and execute strategies to provide adult learners with affordable, flexible, stackable credential- and degree-based programming that is aligned with the needs of the adult learner population and their employers.

This is an evolving, transformational concept within higher education; the framework and recommendations contained within this report are designed to put the UMS at the forefront of this rapidly expanding approach to skill and credential attainment closely aligned with the needs of the state’s economy and workforce. This work is closely connected to several other UMS priorities including adult degree completion, workforce engagement, Early College and the work of Maine Center Ventures. Due to a very full May Board of Trustees meeting agenda, an overview of the report and recommendations will be presented by Dr. Claire Sullivan, Coordinator of Community Engagement and Associate Professor of Communication at UM and Rosa Redonnett, UMS Chief Student Affairs Officer at a separate meeting.

Attachment:  
[Micro Credential Report and Recommendations](#)

REVISED - 5/16/2019



## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Increasing Affordability & Reducing Student Debt (goal 2, action 3)
2. **INITIATED BY:** James H. Page, Chancellor
3. **BOARD INFORMATION:** X **BOARD ACTION:**
4. **OUTCOME:** **BOARD POLICY:**  
Improve Student Success & Completion
5. **BACKGROUND:**

In December 2019, the University of Maine System Board of Trustees issued a *Declaration of Strategic Priorities to Address Critical State Needs*. Among other provisions, the UMS Trustees state:

“To remain competitive, UMS must retain its status as a national leader in higher education affordability and tuition restraint, limiting tuition increases, investing in financial aid, and creating pathways for students with the highest need to complete their educational programs without tuition debt. UMS will strive to make all credential and degree attainment readily affordable and accessible to all Maine families, with the lowest possible level of debt.”

Recommendations for increasing affordability and reducing student debt will be presented at the May 19-20, 2019 Board of Trustees meeting.

Attachment:  
[Student Debt Report](#)

REVISED - 5/15/19



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## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Financial Model for Academic Responsiveness (goal 3, action 1.2)
2. **INITIATED BY:** James H. Page, Chancellor
3. **BOARD INFORMATION:** X **BOARD ACTION:**
4. **OUTCOME:** **BOARD POLICY:**
5. **BACKGROUND:**

Vice Chancellors Ryan Low and Bob Neely will briefly update the Board on efforts to align academic resources to advance the One University agenda. The Vice Chancellor for Academic Affairs office is planning on:

- a) modifying its strategy to identify new programs for collaboration and/or innovation to meet disciplinary, workforce and economic needs; and
- b) reorganizing responsibilities to adequately address Board of Trustee expectations regarding adult degree completion and micro-credentialing.

The new strategy to be described will involve reimagining the Program Innovation Fund process, and implementing a more directive process for targeting new programs for development and incentivization.

## University of Maine System Managed Investment Pool

# TOTAL PLAN PERFORMANCE

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
<b>MIP Composite</b>	<b>334,968,914</b>	<b>100.0</b>	<b>100.0</b>	<b>1.1</b>	<b>7.6</b>	<b>0.2</b>	<b>0.5</b>	<b>5.0</b>	<b>6.6</b>	<b>3.8</b>	<b>5.7</b>	<b>8.6</b>
Allocation Index				1.0	8.2	1.5	1.8	6.2	7.3	4.7	6.1	8.6
Policy Index				0.9	8.2	1.8	2.1	6.7	7.9	5.1	6.3	8.7
<b>Total Domestic Large Cap</b>	<b>64,527,551</b>	<b>19.3</b>	<b>16.0</b>	<b>1.9</b>	<b>13.6</b>	<b>5.8</b>	<b>9.4</b>	<b>11.6</b>	<b>13.4</b>	<b>10.8</b>	<b>12.5</b>	<b>15.8</b>
S&P 500				1.9	13.6	5.9	9.5	11.7	13.5	10.9	12.8	15.9
SSgA S&P 500	64,527,551	19.3	16.0	1.9	13.6	5.8	9.4	11.6	13.4	10.8	12.8	15.9
S&P 500				1.9	13.6	5.9	9.5	11.7	13.5	10.9	12.8	15.9
<b>Total Domestic Small/Mid Cap</b>	<b>20,864,939</b>	<b>6.2</b>	<b>6.0</b>	<b>-1.5</b>	<b>14.2</b>	<b>-5.8</b>	<b>-0.5</b>	<b>7.3</b>	<b>12.5</b>	<b>6.6</b>	<b>11.0</b>	<b>15.4</b>
Russell 2500				-0.8	15.8	-1.2	4.5	8.3	12.6	7.8	11.4	16.2
Westfield Capital	10,589,367	3.2	3.0	0.4	16.3	-2.4	2.7	12.6	15.7	8.1	11.7	16.8
Russell 2500 Growth				-0.2	19.0	1.9	7.5	13.6	15.6	9.7	12.6	17.5
DFA	10,275,572	3.1	3.0	-3.4	12.1	-8.9	-3.4	1.6	8.6	4.5	9.9	--
Russell 2000 Value				-2.9	11.9	-7.5	0.2	2.6	10.9	5.6	9.6	14.1
<b>Total International Equity (including emerging markets)</b>	<b>76,959,788</b>	<b>23.0</b>	<b>23.0</b>	<b>1.3</b>	<b>9.2</b>	<b>-5.0</b>	<b>-7.8</b>	<b>3.4</b>	<b>5.5</b>	<b>1.6</b>	<b>4.1</b>	<b>9.0</b>
MSCI EAFE				0.6	10.0	-2.5	-3.7	5.1	7.3	2.3	5.6	9.0
Morgan Stanley	21,455,575	6.4	6.3	2.2	11.2	-2.5	-2.7	5.2	6.4	2.0	5.2	8.1
Globeflex	20,521,735	6.1	6.3	0.4	9.5	-9.3	-10.1	3.5	5.5	2.0	6.0	9.2
MSCI EAFE				0.6	10.0	-2.5	-3.7	5.1	7.3	2.3	5.6	9.0
Kabouter International Opportunities Offshore Fund II	11,267,254	3.4	3.5	-1.3	5.9	-13.1	-14.5	--	--	--	--	--
MSCI EAFE Small Cap				0.2	10.7	-7.9	-9.4	5.8	7.5	4.5	8.2	12.8
<b>Emerging Markets Equity</b>	<b>23,715,224</b>	<b>7.1</b>	<b>7.0</b>	<b>2.7</b>	<b>8.8</b>	<b>1.1</b>	<b>-7.3</b>	<b>2.6</b>	<b>5.3</b>	<b>0.9</b>	<b>1.0</b>	<b>--</b>
MSCI Emerging Markets				0.8	9.9	0.6	-7.4	7.6	10.7	3.7	2.7	8.9
Aberdeen Emerging Mkts	12,200,444	3.6	3.5	2.9	10.8	6.4	-5.4	4.9	8.5	2.8	2.4	10.8
MSCI Emerging Markets				0.8	9.9	0.6	-7.4	7.6	10.7	3.7	2.7	8.9
Mondrian EM Small Cap	11,514,780	3.4	3.5	2.6	6.8	-3.9	-9.3	0.2	1.9	--	--	--
MSCI Emerging Markets Small Cap				0.9	7.8	-4.2	-12.4	1.9	5.9	1.8	2.6	10.4
<b>Total Fixed Income</b>	<b>72,631,926</b>	<b>21.7</b>	<b>21.0</b>	<b>1.1</b>	<b>3.1</b>	<b>2.7</b>	<b>3.1</b>	<b>2.9</b>	<b>3.4</b>	<b>2.8</b>	<b>3.9</b>	<b>5.9</b>
BBgBarc US Aggregate TR				1.9	2.9	4.6	4.5	2.8	2.0	2.7	2.5	3.8
Commonfund	18,826,451	5.6	5.0	1.4	3.1	4.3	4.0	3.3	3.0	3.0	3.4	5.6
BBgBarc US Aggregate TR				1.9	2.9	4.6	4.5	2.8	2.0	2.7	2.5	3.8
Vanguard Inflation-Protected Securities	12,254,562	3.7	8.0	1.9	3.2	1.9	2.7	1.7	1.6	--	--	--
BBgBarc US TIPS TR				1.8	3.2	1.9	2.7	1.8	1.7	1.9	1.2	3.4
Vanguard Short-Term Inflation-Protected Securities	12,000,000	3.6										



March 31, 2019



## University of Maine System Managed Investment Pool

# TOTAL PLAN PERFORMANCE

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Blackrock Strategic Income Opportunities	13,337,958	4.0	3.0	0.9	2.5	2.4	--	--	--	--	--	--
3-Month Libor Total Return USD				0.2	0.7	2.0	2.6	2.0	1.7	1.1	0.9	0.7
Bain Capital Senior Loan Fund	14,613,902	4.4	5.0	-0.1	4.0	--	--	--	--	--	--	--
Credit Suisse Leveraged Loans				-0.1	3.8	2.5	3.3	4.0	5.9	3.8	4.6	8.0
Guggenheim US Bank Loans	1,599,052	0.5										
<b>Total GAA</b>	<b>76,945,782</b>	<b>23.0</b>	<b>23.0</b>	<b>1.1</b>	<b>5.6</b>	<b>0.8</b>	<b>-0.1</b>	<b>3.3</b>	<b>4.5</b>	<b>1.9</b>	<b>3.4</b>	<b>6.0</b>
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				1.3	8.6	2.4	1.8	6.8	7.5	4.7	6.0	9.0
GMO Global Absolute Return	25,555,287	7.6	7.7	0.2	5.2	0.8	-2.1	3.4	5.0	2.3	3.9	5.6
Blended Index				1.6	4.6	4.4	4.5	3.6	3.9	3.6	3.6	5.8
Wellington	25,678,072	7.7	7.7	0.9	7.0	-3.5	-5.0	2.3	5.6	2.9	4.3	7.5
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				1.3	8.6	2.4	1.8	6.8	7.5	4.7	6.0	9.0
Newton Global Real Return	25,712,422	7.7	7.7	2.2	4.6	5.2	7.1	3.9	--	--	--	--
60% MSCI ACWI (Net)/ 40% BBgBarc Global Agg				1.3	8.1	2.5	1.6	6.6	7.0	4.4	5.6	8.5
<b>Total Hedge Funds</b>	<b>18,440,608</b>	<b>5.5</b>	<b>6.0</b>	<b>0.4</b>	<b>4.9</b>	<b>-3.8</b>	<b>-1.5</b>	<b>1.6</b>	<b>3.5</b>	<b>0.8</b>	<b>2.0</b>	<b>3.1</b>
HFRI Fund of Funds Composite Index				0.9	4.6	-0.4	0.1	2.8	3.9	2.2	3.1	3.5
Lighthouse	18,440,608	5.5	6.0	0.4	4.9	-3.8	-1.0	2.7	4.5	--	--	--
Credit Suisse Long Shrt Eqt USD				0.3	5.3	-0.2	-0.5	5.0	4.6	3.4	5.2	6.3
<b>Total Real Assets</b>	<b>1,523,286</b>	<b>0.5</b>	<b>3.0</b>	<b>-1.0</b>	<b>-1.0</b>	<b>-6.7</b>	<b>-7.0</b>	<b>-2.7</b>	<b>-3.4</b>	<b>-0.4</b>	<b>3.6</b>	<b>--</b>
NCREIF Timberland Index				0.0	0.0	2.0	2.5	3.1	3.3	4.7	6.0	3.8
John Hancock Timber Fund	1,523,286	0.5	3.0	-1.0	-1.0	-6.7	-7.0	-2.7	-3.4	-0.4	3.6	0.0
NCREIF Timberland Index				0.0	0.0	2.0	2.5	3.1	3.3	4.7	6.0	3.8
<b>Private Equity</b>	<b>1,955,484</b>	<b>0.6</b>	<b>2.0</b>	<b>0.0</b>	<b>0.0</b>	<b>5.8</b>	<b>10.5</b>	<b>16.0</b>	<b>14.6</b>	<b>--</b>	<b>--</b>	<b>--</b>
Landmark Equity Partners XV	1,955,484	0.6	2.0	0.0	0.0	5.8	10.5	16.0	14.6	--	--	--
Cambridge Associates US All PE (1 Qtr Lag)				-2.1	-2.1	7.1	10.0	13.7	13.5	11.4	13.2	13.7
<b>Total Cash</b>	<b>1,119,550</b>	<b>0.3</b>	<b>0.0</b>									
Distribution Account	1,119,550	0.3	0.0	0.2	0.5	1.4	1.8	1.3	0.9	0.5	0.4	0.4
91 Day T-Bills				0.2	0.6	1.7	2.1	1.7	1.2	0.8	0.6	0.4

## Notes:

Fiscal YTD begins 7/1

Blended Index: 40% BC Aggregate, 30% BC U.S. TIPS 1-10YR, 10% S&amp;P 500, 10% BC High Yield, 10% JPM EMBI+

Returns are net of manager fees

John Hancock Timber market value as of 03/31/19

Landmark market value estimated as of 03/31/19

Cash account includes \$2,156 currently being held in the MetWest account and \$1,141 being held in the TCW account

Guggenheim market value is a holdback.

GMO Market value is preliminary.

March 31, 2019

## University of Maine System Pension Plan

## TOTAL PLAN PERFORMANCE

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
<b>Pension Composite</b>	<b>26,926,834</b>	<b>100.0</b>	<b>100.0</b>	<b>1.4</b>	<b>5.5</b>	<b>1.8</b>	<b>2.7</b>	<b>4.4</b>	<b>5.2</b>	<b>3.4</b>	<b>5.1</b>	<b>7.8</b>
Allocation Index				1.2	6.1	2.3	2.5	5.6	6.0	4.5	5.9	8.2
Policy Index				1.2	6.3	2.7	2.9	5.7	6.2	4.7	6.0	8.4
<b>Total Domestic Large Cap</b>	<b>3,253,444</b>	<b>12.1</b>	<b>8.0</b>	<b>1.9</b>	<b>13.6</b>	<b>5.8</b>	<b>9.5</b>	<b>11.7</b>	<b>13.5</b>	<b>10.9</b>	<b>12.7</b>	<b>14.9</b>
S&P 500				1.9	13.6	5.9	9.5	11.7	13.5	10.9	12.8	15.9
Vanguard S&P 500 Index	3,253,444	12.1	8.0	1.9	13.6	5.8	9.5	11.7	13.5	10.9	--	--
S&P 500				1.9	13.6	5.9	9.5	11.7	13.5	10.9	12.8	15.9
<b>Total Small Cap Composite</b>	<b>1,380,684</b>	<b>5.1</b>	<b>4.0</b>	<b>-2.1</b>	<b>14.6</b>	<b>-5.3</b>	<b>2.0</b>	<b>6.8</b>	<b>12.9</b>	<b>6.9</b>	<b>10.5</b>	<b>--</b>
Russell 2000				-2.1	14.6	-5.3	2.0	6.8	12.9	7.1	10.7	15.4
SSgA R2000 Index Fund Non Lending	1,380,684	5.1	4.0	-2.1	14.6	-5.3	2.0	6.8	12.9	6.9	10.6	--
Russell 2000				-2.1	14.6	-5.3	2.0	6.8	12.9	7.1	10.7	15.4
<b>Total International Equity (including emerging markets)</b>	<b>3,045,720</b>	<b>11.3</b>	<b>10.0</b>	<b>2.3</b>	<b>9.8</b>	<b>-2.9</b>	<b>-4.6</b>	<b>3.6</b>	<b>5.1</b>	<b>1.3</b>	<b>3.6</b>	<b>7.0</b>
MSCI EAFE				0.6	10.0	-2.5	-3.7	5.1	7.3	2.3	5.6	9.0
Morgan Stanley Int'l	2,229,118	8.3	7.0	2.2	11.2	-2.5	-2.7	5.2	6.5	2.1	5.3	8.2
MSCI EAFE				0.6	10.0	-2.5	-3.7	5.1	7.3	2.3	5.6	9.0
<b>Emerging Markets Equity</b>	<b>816,602</b>	<b>3.0</b>	<b>3.0</b>	<b>2.6</b>	<b>6.8</b>	<b>-3.9</b>	<b>-9.3</b>	<b>0.2</b>	<b>1.9</b>	<b>-1.0</b>	<b>-0.1</b>	<b>--</b>
MSCI Emerging Markets				0.8	9.9	0.6	-7.4	7.6	10.7	3.7	2.7	8.9
Mondrian EM Small Cap	816,602	3.0	3.0	2.6	6.8	-3.9	-9.3	0.2	1.9	--	--	--
MSCI Emerging Markets Small Cap				0.9	7.8	-4.2	-12.4	1.9	5.9	1.8	2.6	10.4
<b>Total Fixed Income</b>	<b>9,763,770</b>	<b>36.3</b>	<b>35.0</b>	<b>1.6</b>	<b>3.1</b>	<b>3.6</b>	<b>3.8</b>	<b>2.8</b>	<b>2.5</b>	<b>2.5</b>	<b>3.2</b>	<b>4.8</b>
BBgBarc US Aggregate TR				1.9	2.9	4.6	4.5	2.8	2.0	2.7	2.5	3.8
Vanguard Total Bond Market Index	6,755,101	25.1	20.0	2.0	3.0	4.7	4.5	2.8	2.0	--	--	--
BBgBarc US Aggregate TR				1.9	2.9	4.6	4.5	2.8	2.0	2.7	2.5	3.8
Vanguard Inflation-Protected Securities	899,078	3.3	7.0	1.9	3.2	1.9	2.7	--	--	--	--	--
BBgBarc US TIPS TR				1.8	3.2	1.9	2.7	1.8	1.7	1.9	1.2	3.4
BlackRock Strategic Income Opportunities	642,551	2.4	3.0	0.9	2.5	2.5	--	--	--	--	--	--
3-Month Libor Total Return USD				0.2	0.7	2.0	2.6	2.0	1.7	1.1	0.9	0.7
Bain Capital Senior Loan Fund	1,311,725	4.9	5.0	-0.1	4.0	--	--	--	--	--	--	--
Credit Suisse Leveraged Loans				-0.1	3.8	2.5	3.3	4.0	5.9	3.8	4.6	8.0
Guggenheim US Bank Loans	155,315	0.6										



March 31, 2019

## University of Maine System Pension Plan

## TOTAL PLAN PERFORMANCE

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
<b>Total GAA</b>	<b>5,763,472</b>	<b>21.4</b>	<b>27.5</b>	<b>1.5</b>	<b>5.7</b>	<b>1.0</b>	<b>1.1</b>	<b>3.3</b>	<b>4.4</b>	<b>1.8</b>	<b>3.2</b>	<b>6.8</b>
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				1.3	8.6	2.4	1.8	6.8	7.5	4.7	6.0	9.0
Wellington	3,726,534	13.8	13.8	0.8	6.9	-3.4	-5.0	2.4	5.7	2.9	4.4	7.6
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				1.3	8.6	2.4	1.8	6.8	7.5	4.7	6.0	9.0
Newton Global Real Return	2,036,938	7.6	13.8	2.2	4.6	5.2	7.1	4.0	--	--	--	--
60% MSCI ACWI (Net) / 40% FTSE WGBI				1.3	7.9	2.2	1.2	6.6	6.8	4.2	5.4	8.2
<b>Total Alternative Investments</b>	<b>1,191,922</b>	<b>4.4</b>	<b>4.5</b>	<b>0.4</b>	<b>4.9</b>	<b>-3.8</b>	<b>-1.6</b>	<b>1.6</b>	<b>3.5</b>	<b>1.4</b>	<b>2.4</b>	<b>3.3</b>
HFRI Fund of Funds Composite Index				0.9	4.6	-0.4	0.1	2.8	3.9	2.2	3.1	3.5
Lighthouse	1,191,922	4.4	4.5	0.4	4.9	-3.8	-1.0	2.7	4.5	--	--	--
Credit Suisse Long Shrt Eqt USD				0.3	5.3	-0.2	-0.5	5.0	4.6	3.4	5.2	6.3
<b>Total Real Assets</b>	<b>2,256,200</b>	<b>8.4</b>	<b>8.0</b>									
Principal	2,256,200	8.4	8.0	0.5	1.6	5.4	7.7	7.8	8.2	10.1	10.7	8.1
NCREIF ODCE				1.4	1.4	5.4	7.5	7.8	8.0	10.2	10.8	8.7
<b>Total Cash</b>	<b>271,622</b>	<b>1.0</b>	<b>3.0</b>									
Distribution Account	271,622	1.0	3.0	0.2	0.5	1.5	1.8	1.3	0.9	0.5	0.4	0.3
91 Day T-Bills				0.2	0.6	1.7	2.1	1.7	1.2	0.8	0.6	0.4

Notes:

Fiscal YTD begins 7/1

Blended Index: 40% BC Aggregate, 30% BC U.S. TIPS 1-10YR, 10% S&amp;P 500, 10% BC High Yield, 10% JPM EMBI+

Returns are net of manager fees

Guggenheim market value is a holdback

Morgan Stanley includes \$350K in transit from cash account.

March 31, 2019

## University of Maine System Pension Plan

**CASH FLOW SUMMARY**

	Beginning Market Value	Contributions	Month Ending March 31, 2019				Ending Market Value
			Withdrawals	Net Cash Flow	Fees	Net Investment Change	
Bain Capital Senior Loan Fund	\$1,312,995	\$0	\$0	\$0	-\$558	-\$1,270	\$1,311,725
BlackRock Strategic Income Opportunities	\$760,660	\$0	-\$125,000	-\$125,000	-\$284	\$6,891	\$642,551
Distribution Account	\$493,876	\$126,383	-\$349,261	-\$222,879	\$0	\$625	\$271,622
Guggenheim US Bank Loans	\$155,315	\$0	\$0	\$0	\$0	\$0	\$155,315
Lighthouse	\$1,186,834	\$0	\$0	\$0	\$0	\$5,088	\$1,191,922
Mondrian EM Small Cap	\$797,729	\$0	-\$2,392	-\$2,392	-\$646	\$21,265	\$816,602
Morgan Stanley Int'l	\$1,839,030	\$350,000	\$0	\$350,000	-\$1,765	\$40,088	\$2,229,118
Newton Global Real Return	\$3,711,598	\$0	-\$1,750,000	-\$1,750,000	-\$1,358	\$75,340	\$2,036,938
Principal	\$2,245,378	\$0	\$0	\$0	\$0	\$10,823	\$2,256,200
SSgA R2000 Index Fund Non Lending	\$1,000,697	\$400,000	-\$185	\$399,815	-\$92	-\$19,828	\$1,380,684
Vanguard Inflation-Protected Securities	\$1,866,882	\$0	-\$1,000,000	-\$1,000,000	-\$52	\$32,196	\$899,078
Vanguard S&P 500 Index	\$2,199,942	\$1,000,000	\$0	\$1,000,000	-\$108	\$53,502	\$3,253,444
Vanguard Total Bond Market Index	\$5,642,850	\$1,000,000	\$0	\$1,000,000	-\$394	\$112,251	\$6,755,101
Wellington	\$3,691,828	\$0	\$0	\$0	-\$3,416	\$34,706	\$3,726,534
<b>Total</b>	<b>\$26,905,613</b>	<b>\$2,876,383</b>	<b>-\$3,226,839</b>	<b>-\$350,456</b>	<b>-\$8,674</b>	<b>\$371,677</b>	<b>\$26,926,834</b>



March 31, 2019

## University of Maine System Operating Fund

## TOTAL PLAN PERFORMANCE

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
<b>Operating Funds Composite</b>	<b>293,805,898</b>	<b>100.0</b>	<b>100.0</b>	<b>0.7</b>	<b>2.6</b>	<b>2.1</b>	<b>2.4</b>	<b>2.7</b>	<b>3.2</b>	<b>2.0</b>	<b>2.4</b>	<b>3.3</b>
<i>Allocation Index</i>				0.6	2.8	2.5	2.7	3.1	3.1	2.3	2.5	--
<b>Liquidity Pool Composite</b>	<b>86,325,610</b>	<b>29.4</b>	<b>25.0</b>	<b>0.2</b>	<b>0.6</b>	<b>1.5</b>	<b>1.9</b>	<b>1.4</b>	<b>1.1</b>	<b>0.7</b>	<b>0.6</b>	<b>0.5</b>
State Pool	58,250,790	19.8		0.2	0.6	1.5	1.9	1.5	1.2	0.8	0.7	0.6
BOA General Fund	248,824	0.1		0.0	0.3	0.8	0.9	0.5	0.3	0.2	0.2	--
Federated Gov't Obligations	3,535,390	1.2		0.2	0.6	1.6	2.0	1.5	--	--	--	--
JP Morgan US Gov't Money Market Fund	24,290,606	8.3		0.2	0.6	1.6	2.0	1.4	--	--	--	--
<i>FTSE T-Bill 3 Months TR</i>				0.2	0.6	1.7	2.1	1.6	1.2	0.7	0.5	0.4
<b>Income Pool Composite</b>	<b>137,610,596</b>	<b>46.8</b>	<b>50.0</b>	<b>0.8</b>	<b>2.1</b>	<b>2.7</b>	<b>2.9</b>	<b>2.0</b>	<b>2.4</b>	<b>1.9</b>	<b>2.3</b>	<b>4.5</b>
Income Research + Management	76,461,545	26.0	26.7	0.6	1.3	2.8	3.1	1.6	1.4	1.3	--	--
<i>BBgBarc US Govt/Credit 1-3 Yr. TR</i>				0.7	1.2	2.7	3.0	1.6	1.3	1.2	1.1	1.6
BlackRock Strategic Income Opportunities	17,742,619	6.0	6.7	0.9	2.5	2.5	1.7	2.7	3.7	--	--	--
<i>3-Month Libor Total Return USD</i>				0.2	0.7	2.0	2.6	2.0	1.7	1.1	0.9	0.7
Loomis Sayles Bank Loans	19,077,034	6.5	6.7	-0.2	3.8	2.0	2.4	3.0	4.2	3.0	3.6	6.0
<i>Loomis Bank Loans Custom Index</i>				-0.3	4.3	2.2	2.7	3.3	4.2	3.6	4.3	8.0
Vanguard Total Bond Market Instl' Fund	24,329,398	8.3	5.0	2.0	3.0	4.7	4.5	2.8	2.0	2.7	2.4	--
<i>BBgBarc US Aggregate TR</i>				1.9	2.9	4.6	4.5	2.8	2.0	2.7	2.5	3.8
<b>Total Return Pool Composite</b>	<b>69,869,693</b>	<b>23.8</b>	<b>25.0</b>	<b>1.1</b>	<b>6.8</b>	<b>1.5</b>	<b>2.0</b>	<b>5.1</b>	<b>6.8</b>	<b>3.7</b>	<b>4.6</b>	<b>6.6</b>
Lighthouse	14,254,973	4.9	5.0	0.4	4.9	-3.8	-1.0	2.7	4.5	--	--	--
<i>Credit Suisse Long Shrt Eqt USD</i>				0.3	5.3	-0.2	-0.5	5.0	4.6	3.4	5.2	6.3
Newton Global Real Return	18,092,572	6.2	6.3	2.2	4.6	5.2	7.1	3.9	--	--	--	--
<i>60% MSCI ACWI (Net)/ 40% BBgBarc Global Agg</i>				1.3	8.1	2.5	1.6	6.6	7.0	4.4	5.6	8.5
PIMCO All Asset	17,485,160	6.0	6.3	0.6	5.4	2.3	-0.2	4.2	7.1	3.1	3.9	7.4
<i>Blended Index</i>				1.6	4.6	4.4	4.5	3.6	3.9	3.6	3.6	5.8
Vanguard Total World Stock Index	20,036,988	6.8	7.5	1.2	12.4	1.6	2.0	8.5	10.9	6.7	--	--
<i>FTSE Global All Cap Index</i>				1.1	12.4	1.6	2.4	8.7	10.1	5.3	7.1	10.6

## Notes:

Returns are net of manager fees.

The inception date for the allocation index is 07/01/2009

Fiscal YTD begins 7/1

Blended Index: 40% BC Aggregate / 30% BC U.S. TIPS 1-10YR / 10% S&amp;P 500 / 10% BC High Yield / 10% JPM EMBI+

Loomis Bank Loans Custom Index blends performance of "S&amp;P/LSTA Leveraged Loan Index" before 9/1/2014 and "S&amp;P/LSTA Leveraged BB Loan Index" after 9/1/2014.

Composite excludes external loans.

Blackrock SIO changed its share class in May 2018 to BSIKX.

## University of Maine System Operating Fund

# CASH FLOW SUMMARY

	Month Ending March 31, 2019						
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Fees	Net Investment Change	Ending Market Value
BlackRock Strategic Income Opportunities	\$17,582,007	\$0	\$0	\$0	-\$8,871	\$160,612	\$17,742,619
BOA General Fund	\$2,318,983	\$0	-\$2,070,500	-\$2,070,500	\$0	\$341	\$248,824
Federated Gov't Obligations	\$9,630,304	\$4,300,000	-\$10,400,000	-\$6,100,000	\$0	\$5,086	\$3,535,390
Income Research + Management	\$75,982,297	\$0	-\$1,827	-\$1,827	-\$14,857	\$481,075	\$76,461,545
JP Morgan US Gov't Money Market Fund	\$27,641,644	\$29,100,000	-\$32,500,000	-\$3,400,000	\$0	\$48,962	\$24,290,606
Lighthouse	\$14,194,122	\$0	\$0	\$0	\$0	\$60,850	\$14,254,973
Loomis Sayles Bank Loans	\$19,101,372	\$0	\$0	\$0	-\$7,472	-\$24,338	\$19,077,034
Newton Global Real Return	\$17,710,715	\$0	\$0	\$0	-\$12,062	\$381,857	\$18,092,572
PIMCO All Asset	\$17,379,547	\$0	\$0	\$0	-\$14,717	\$105,613	\$17,485,160
State Pool	\$78,103,251	\$0	-\$20,000,000	-\$20,000,000	\$0	\$147,539	\$58,250,790
Vanguard Inflation-Protected Securities	\$12,699,226	\$0	-\$12,900,402	-\$12,900,402	\$0	\$201,176	--
Vanguard Total Bond Market Instl' Fund	\$13,058,025	\$11,000,000	\$0	\$11,000,000	-\$1,419	\$271,373	\$24,329,398
Vanguard Total World Stock Index	\$17,920,067	\$1,900,402	\$0	\$1,900,402	-\$2,839	\$216,519	\$20,036,988
<b>Total</b>	<b>\$323,321,560</b>	<b>\$46,300,402</b>	<b>-\$77,872,729</b>	<b>-\$31,572,327</b>	<b>-\$62,237</b>	<b>\$2,056,665</b>	<b>\$293,805,898</b>



March 31, 2019



**FY2019  
E&G and Auxiliary  
Forecast  
As of 4/30/2019**

**(Based on internal budget format)**

**UNIVERSITY OF MAINE SYSTEM**  
**FY2019 E&G and AUXILIARY FORECAST #3**  
**As of 04/30/19**

Excluding unrestricted investment income and transfers from reserves, the Universities, Governance, and University Services are projecting an operating loss of \$2.9 million; an improvement over previous forecasts and a \$1.6 million improvement compared to the budget.

<b>E &amp; G and AUXILIARY FY2019</b>					
<b>Institution</b>	<b>Budget</b>	<b>Forecasts</b>			<b>Budget Variance</b>
		<b>1st</b>	<b>2nd</b>	<b>3rd</b>	
UMAINE	\$ -	\$ 1,471,033	\$ 883,912	\$ 912,826	\$ 912,826
UMM	-	(496,289)	(166,541)	(125,659)	(125,659)
UMA	(2,999,008)	(2,369,411)	(2,389,778)	(1,482,009)	1,516,999
UMF	-	(717,640)	(714,593)	(1,339,005)	(1,339,005)
UMFK	6,633	3,201	6,633	6,633	-
UMPI	-	(46,050)	(202,255)	(349,575)	(349,575)
USM - Excluding Law	195,981	(153,253)	737,543	183,389	(12,592)
USM - Law <sup>1</sup>	(1,231,216)	(1,196,228)	(973,988)	(902,464)	328,752
<b>Campus Total</b>	<b>(4,027,610)</b>	<b>(3,504,637)</b>	<b>(2,819,067)</b>	<b>(3,095,864)</b>	<b>931,746</b>
Governance	-	-	-	-	-
University Services	(525,433)	(359,813)	(361,811)	163,159	688,592
<b>TOTAL</b>	<b>\$ (4,553,043)</b>	<b>\$ (3,864,450)</b>	<b>\$ (3,180,878)</b>	<b>\$ (2,932,705)</b>	<b>\$ 1,620,338</b>
<sup>1</sup> USM - Law is approved to receive up to \$500,000 of Budget Stabilization Funds at year end to offset any deficit. Based on current forecast, approximately \$200,000 would be transferred.					

Unrestricted Investment Income	\$ 4,387,337	\$ (1,286,315)	\$ 3,494,283	\$ 6,569,643	\$ 2,182,306
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**Major factors impacting FY2019 forecast**

- Unrestricted investment income is budgeted at \$4.4 million; as of April 30<sup>th</sup>, earnings were \$6.6 million for a budget-to-actual positive variance of \$2.2 million. This forecast does not make any projections for future periods.
- As reported in the prior forecast, total enrollments were below budget at all campuses but non-resident credit hours exceeded budget by 5,230 or 3.4%.

<b>FY19 ENROLLMENT (CREDIT HOURS)</b>					<b>VARIANCE BY RESIDENCY</b>	
	<b>Budget</b>	<b>Actual</b>	<b>Variance</b>		<b>Resident</b>	<b>Non-Resident</b>
UMAINE	283,969	283,573	(396)	(0.14%)	(140)	(256)
UMM	15,000	13,606	(1,394)	(9.29%)	(112)	(1,282)
UMA	74,183	73,923	(260)	(0.35%)	(1,789)	1,529
UMF	56,959	52,523	(4,436)	(7.79%)	(3,543)	(893)
UMFK	31,269	28,763	(2,506)	(8.01%)	(1,548)	(958)
UMPI	30,717	27,661	(3,056)	(9.95%)	(2,776)	(280)
USM - Excluding Law	176,058	175,959	(99)	(0.06%)	(7,012)	6,913
USM - Law	7,622	7,422	(200)	(2.62%)	(657)	457
<b>TOTAL</b>	<b>675,777</b>	<b>663,430</b>	<b>(12,347)</b>	<b>(1.83%)</b>	<b>(17,577)</b>	<b>5,230</b>



- UM continues to project positive operating results due primarily to anticipated vacancy savings.
- UMM's current projected loss is \$126 thousand – a marked improvement over Forecast #1's loss of \$496 thousand. UMM will continue to monitor expenses to secure as many one-time savings as are feasible.
- UMA's projected loss has again declined and represents a \$1.5 million improvement when compared to budget. UMA's forecast is conservative and year-end results are expected to be even more favorable.
- UMF continues to project an operating loss. The cancellation of some May term classes and the impact of the minimum wage increase for student workers has contributed to a larger projected loss than previously reported. UMF does not have reserves to cover this loss if realized
- UMFK continues to project positive operating results due to reversing the planned expansion of athletic scholarships, eliminating 2.75 new positions proposed in the FY19 budget, and not offering a new tennis program.
- UMPI's projected loss has increased based on projected summer enrollments. UMPI is holding vacant positions to help offset the tuition shortfall, experiencing energy savings, and has sufficient reserves to cover the loss if realized.
- USM's current forecast is slightly less than budgeted, but USM continues to project positive operating results.
- Law School's projected loss is \$328 thousand less than originally budgeted due to projected vacancy savings. This improvement will reduce the Budget Stabilization transfer from \$500,000 (as budgeted) to \$200,000.
- University Services budget included the planned use of reserves to provided universities a one-time reduction in certain allocated costs. University Services is currently projecting savings sufficient to eliminate the need to utilize reserves.
- Employee benefits are currently trending as budgeted.

### Travel & Memberships/Contributions Reporting

Public Law 2011, Chapter 616 requires periodic reporting of the actual travel & contribution costs to the Board of Trustees. The budget-to-actual comparisons through April 2019 are below.

Travel, Meals & Entertainment				
Funding Source	Budget	Actuals	Unexpended	
E&G/Auxiliary	\$ 6,482,306	\$ 6,379,650	\$ 102,656	1.6%
Restricted/Other	4,773,200	3,700,856	1,072,344	22.5%
Total	\$ 11,255,506	\$ 10,080,506	\$ 1,175,000	10.4%

Memberships, Gifts, Donations & Sponsorships				
Funding Source	Budget	Actuals	Unexpended	
E&G/Auxiliary	\$ 1,568,744	\$ 1,309,406	\$ 259,338	16.5%
Restricted/Other	566,400	497,125	69,275	12.2% *
Total	\$ 2,135,144	\$ 1,806,531	\$ 328,613	15.4%

*Public Law 2011, Chapter 616 requires periodic reporting of the actual travel & contribution costs to the Board of Trustees*

## **Multi-Year Financial and Structural Gap Analysis**

This information will be submitted as soon as it is finalized.

# FY20

## Proposed Unified Operating Budget, Capital Budget & Student Charges



May 19-20, 2019





## FY20 Budget Overview

- **Budget focus on Board of Trustees priority & secondary outcomes**
- **Enrollment Increase**  
Early College budgeted credit hour increase of 12%  
Academic Partnership credit hours estimated at +6,500
- **In-state, undergraduate tuition increase at CPI at most campuses – 2.5%**
- **Utilization of reserve funds**  
UMA & UMM are using campus reserves to balance: UMF requesting Budget Stabilization; Law School utilizing USM reserves & requesting Budget Stabilization Funds.
- **Governor's proposed Biennial Budget includes a 3% increase in FY20 appropriation plus additional funds for Early College and Adult Degree Completion programs.**





## FY20 Budget Overview

	E&G	Auxiliary	Total	Campus Reserves	Budget Stabilization	Total
UMaine	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
UMM	(494,277)	-	(494,277)	494,277	-	-
UMA	(1,203,064)	(209,672)	(1,412,736)	1,412,736	-	-
UMF	(500,000)	-	(500,000)	-	500,000	-
UMFK	300,887	(300,887)	-	-	-	-
UMPI	(182,679)	228,248	45,569	-	-	45,569
USM (Excl. Law)	-	60,399	60,399	-	-	60,399
Maine Law	(925,000)	-	(925,000)	425,000	500,000	-
Governance	-	-	-	-	-	-
Univ. Svs	-	-	-	-	-	-
<b>Total</b>	<b>\$(3,004,133)</b>	<b>\$ (221,912)</b>	<b>\$(3,226,045)</b>	<b>\$ 2,332,013</b>	<b>\$ 1,000,000</b>	<b>\$ 105,968</b>





## Budget Stabilization Fund

The Budget Stabilization Fund was created to enable the UMS to smooth the financial impact of adverse markets, economic conditions, and address other financial challenges.

The Fund was established in 2010 and has been built from net investment income that exceeded budget pursuant to the Board of Trustees investment policy.

The Treasurer will authorize only the transfer needed to offset a net unrestricted operating loss for each institution at the close of FY19 and FY20.

	Balance 7/1/18	\$ 13,177,518	
		Projected	
Utilization	FY19 (approved)	FY20*	
Law School	(500,000)	(500,000)	
UMF		(500,000)	
Investment gain/loss	TBD	-	
Subtotal	(\$ 500,000)	(\$ 1,000,000)	
	Projected Balance	\$ 11,667,518	

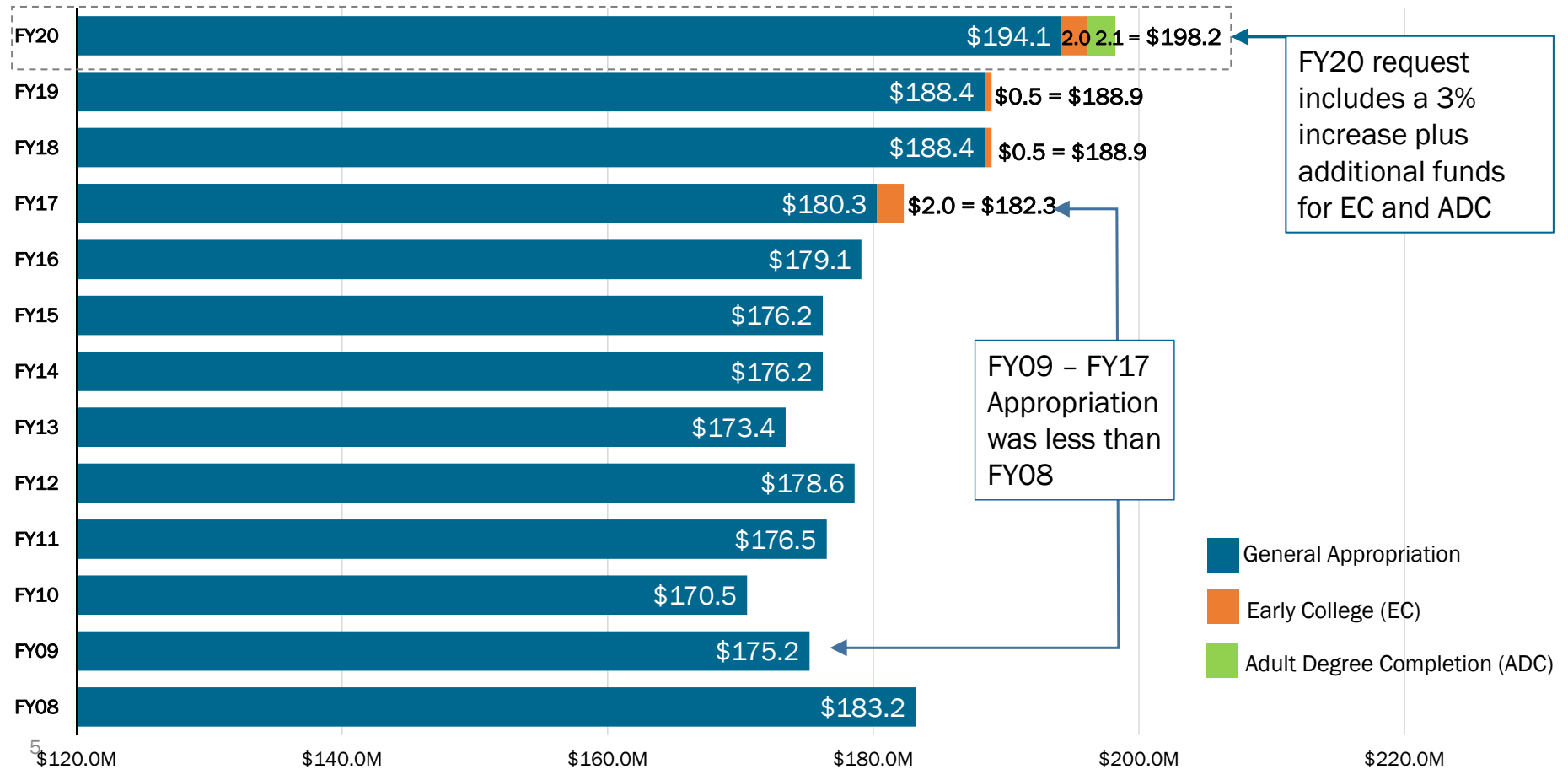
*The Law School annually receives a transfer from USM for \$856,808 representing their portion of State Appropriation.*

\*Requesting BOT approval



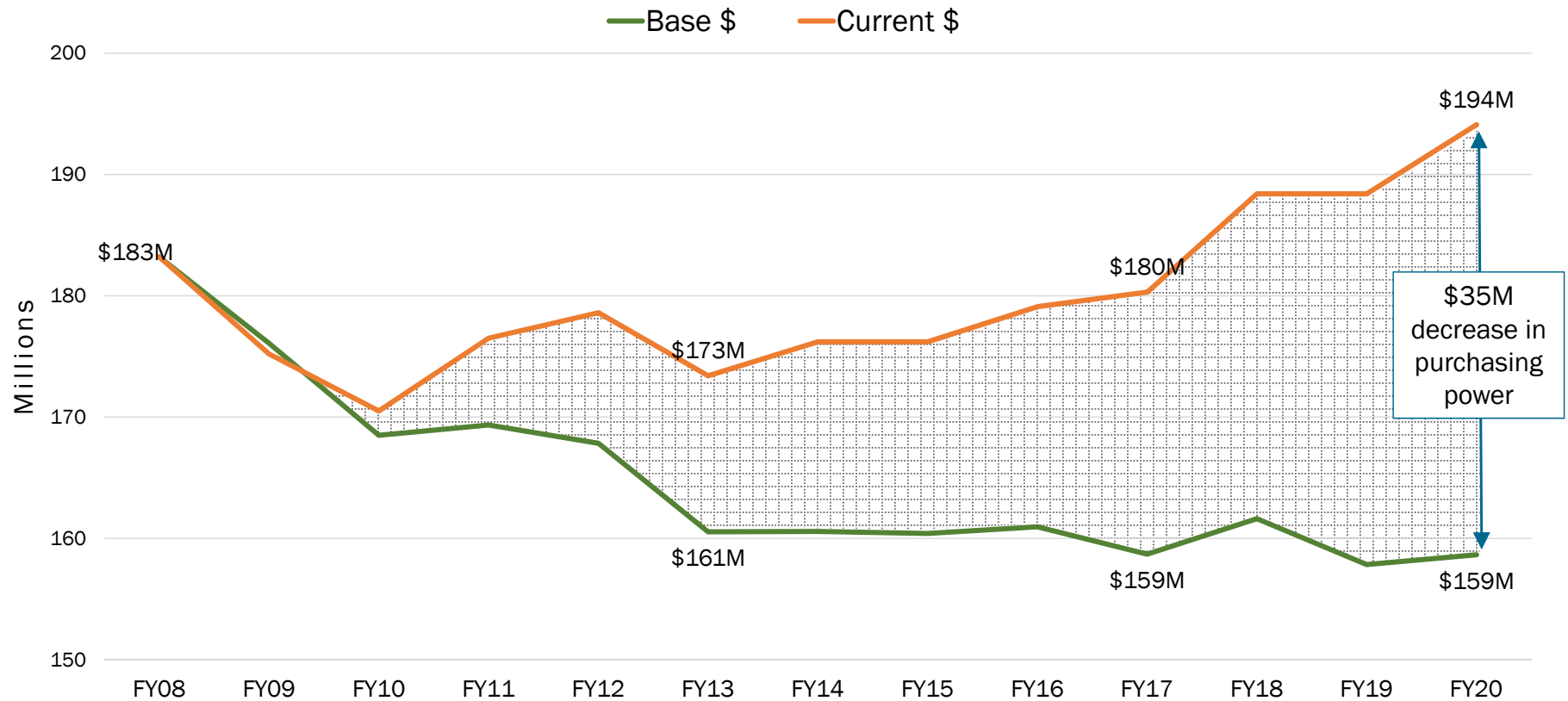


## State Appropriation (in millions)





## Appropriation Decrease in Purchasing Power



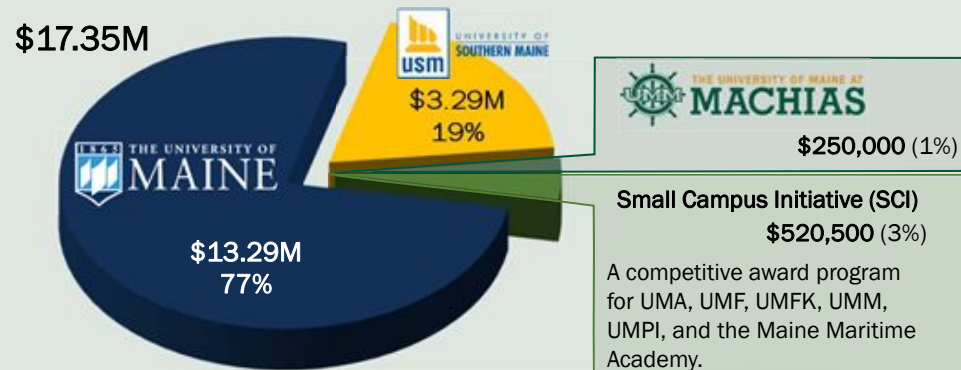




## Maine Economic Improvement Fund (MEIF)

	UMaine	USM	UMM	SCI	Total
Biotechnology	1,516,412	250,000			1,458,714
Aquaculture & Marine	2,389,659	453,043	250,000		3,662,952
Composite Materials	1,673,678	100,000			1,944,246
Environmental	1,544,326	294,817			1,632,986
Forestry & Agriculture	1,617,105	833,700			2,614,762
Information Technology	1,893,809	672,512			2,529,458
Precision Manufacturing	1,475,256	100,000			1,483,284
Cross Sector	1,178,949	586,234			1,503,098
Small Campus Initiative				520,500	520,500
<b>Total</b>	<b>13,289,194</b>	<b>3,290,306</b>	<b>250,000</b>	<b>520,500</b>	<b>17,350,000</b>

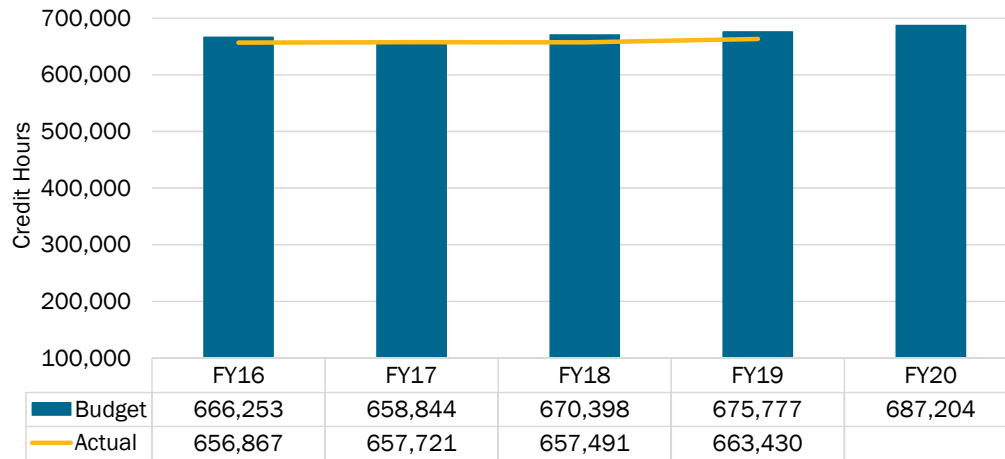
- MEIF is flat funded in Governor's FY20-21 Biennial Budget.



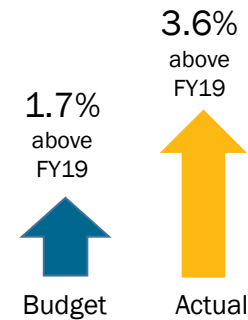


# UMS Enrollment

## UMS Total Credit Hour Enrollment (incl EC, CBE & AP)



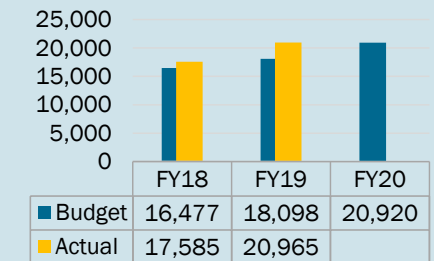
## FY20 Enrollment Budget



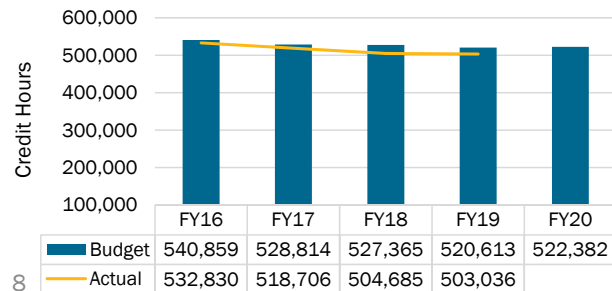
## Major factors impacting enrollment:

- FY20 credit hours are up 3.6% over FY19 actual credit hours
- FY20 out-of-state budgeted represent 24% of the total credit hours.

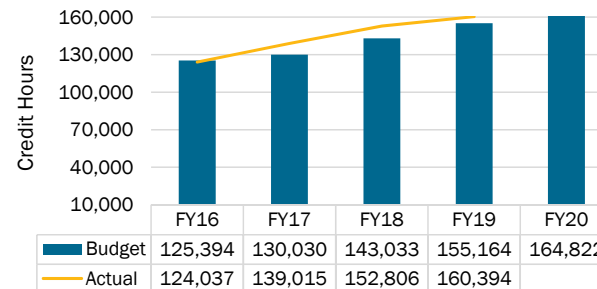
## Early College



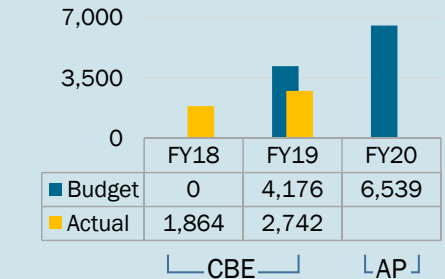
## In-State



## Out-of-State

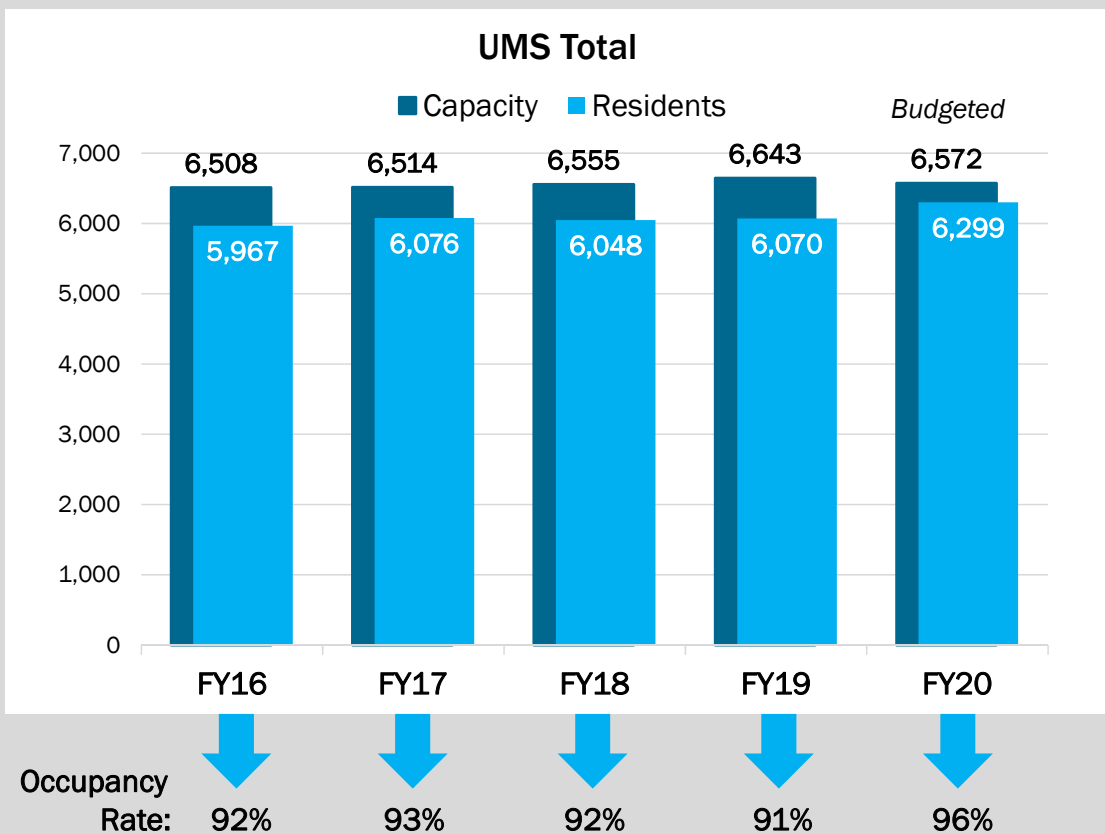


## CBE/AP



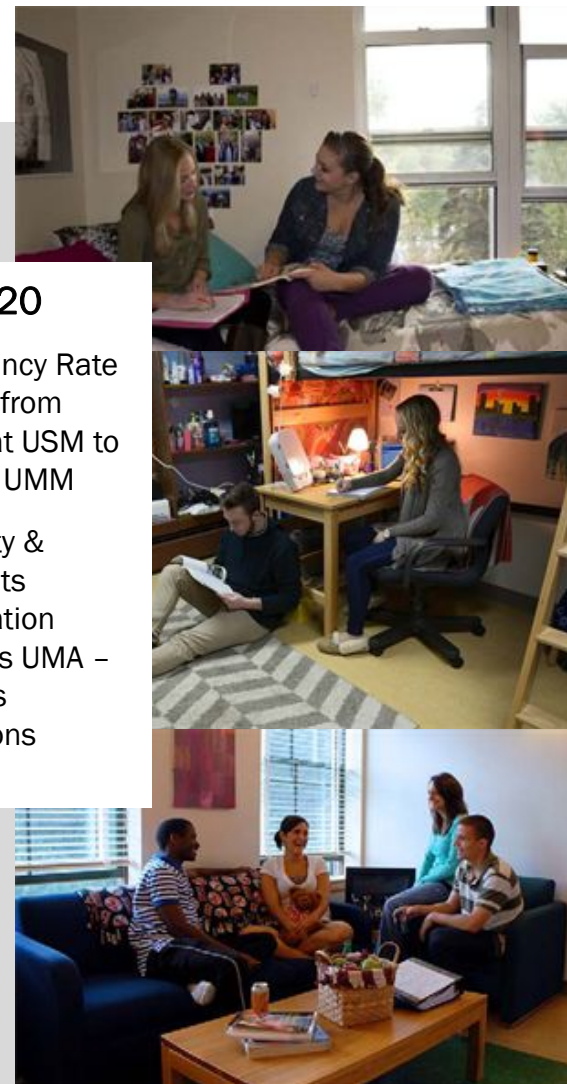


## Residence Hall Occupancy



### FY20

- Occupancy Rate ranges from 118% at USM to 60% at UMM
- Capacity & residents information includes UMA – Stevens Commons





## FY20 Recommended In-State Tuition Rates

Undergraduate	FY19 Rate/CH	FY20 Proposed Rate/CH	FY20 Proposed Increases	
			\$	%
UMaine	\$293	\$300	\$7	2.4%
UMA/UMFK/UMM/UMPI	\$233	\$239	\$6	2.6%
UMF	\$274	\$281	\$7	2.6%
USM	\$271	\$281	\$10	3.7%
Graduate	FY19 Rate/CH	FY20 Proposed Rate/CH	FY20 Proposed Increases	
			\$	%
UMaine	\$439	\$450	\$11	2.5%
UMF/USM	\$407	\$421	\$14	3.4%
Law School	\$743	\$773	\$30	4.0%

- In-State, undergraduate tuition increase based on CPI (2.5%).

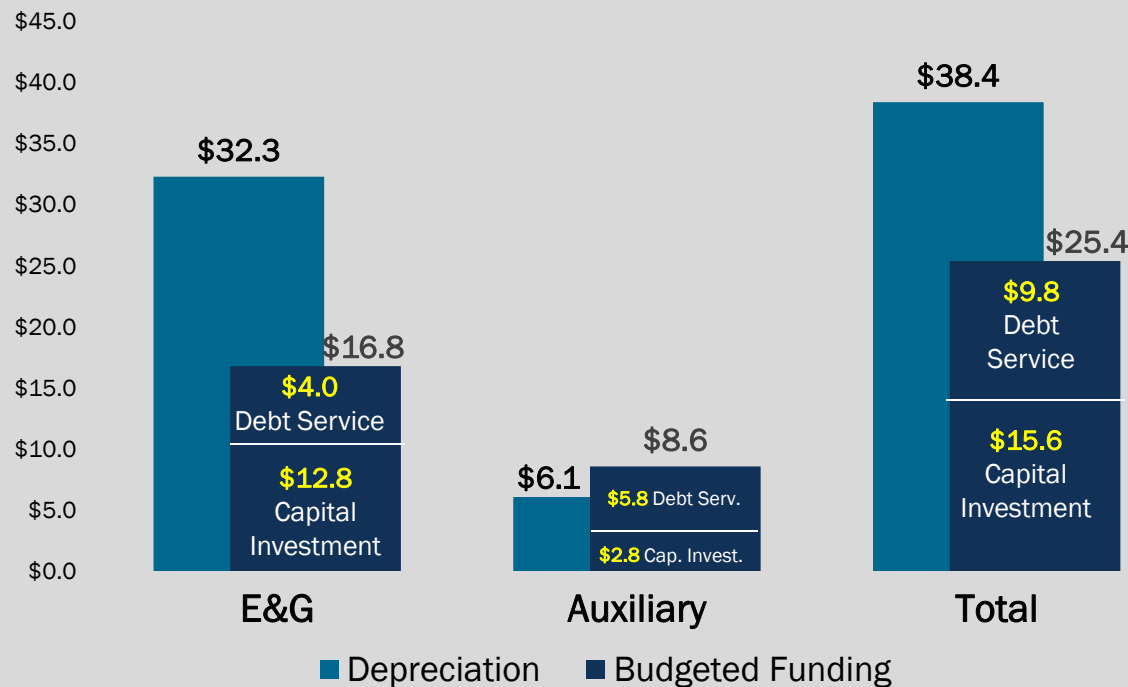
- Additional increases at USM to equal UMF – final implementation step of the Unified Budget pricing structure.

- First Law School tuition increase since FY13



## Funding Depreciation

Funding Depreciation by Fund  
(\$ in millions)

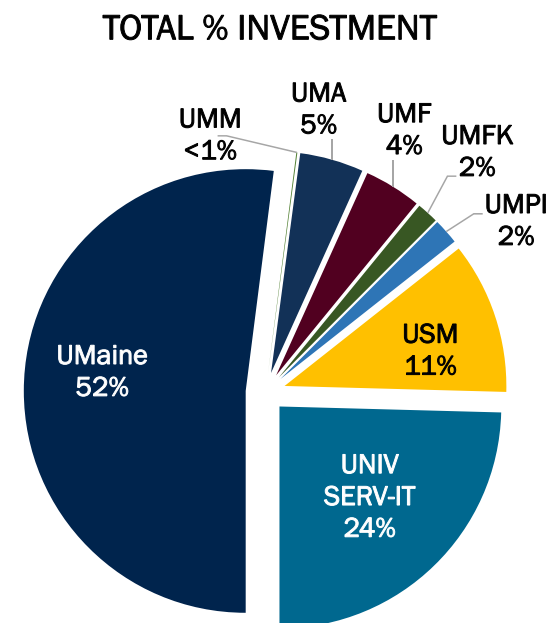


- Depreciation expense increased by \$1.3M - from \$37.1M in FY19 to \$38.4M in FY20.
- E&G and Auxiliary budgeted capital investment = \$15.6M; a decrease of \$2.2M.
- Funding through Debt Service has increased by \$0.5M
- 66% of the total depreciation expense is funded in the FY20 budget – down 7% from the FY19 budget.
- Although not reflected in this budget, UMS will be making capital investments of \$49M with State Bond Funds.



## Capital Investments from Operations

	Facilities	Equipment & Vehicles	Projects to be determined during FY20	Capital Reserve Deposit (to be utilized in FY21 or after)	TOTAL INVESTMENT
UMAINE	\$ 2,233,389	\$ 2,122,950	\$ 2,117,554	\$ 1,637,951	\$ 8,111,844
UMM	-	-	11,408	-	11,408
UMA	675,000	36,679	12,754	-	724,433
UMF	534,266	115,000	-	-	649,266
UMFK	225,000	21,408	-	-	246,408
UMPI	267,383	-	-	25,469	292,852
USM	1,558,500	164,906	-	-	1,723,406
UNIV SERV - IT	-	3,089,800	-	741,771	3,831,571
<b>TOTAL</b>	<b>\$ 5,493,538</b>	<b>\$ 5,550,743</b>	<b>\$ 2,141,716</b>	<b>\$ 2,405,191</b>	<b>\$ 15,591,188</b>





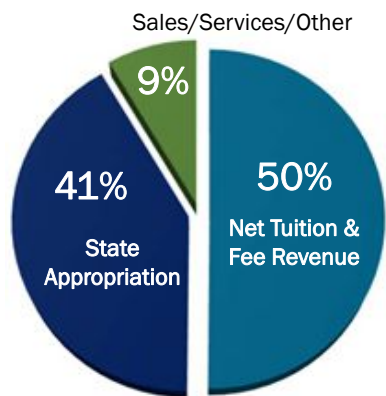
## FY20 Budget E&G/Auxiliary Position Changes

	Faculty		Salaried		Hourly		Total
	Increases/ New Positions	Reductions/ Eliminations	Increases/ New Positions	Reductions/ Eliminations	Increases/ New Positions	Reductions/ Eliminations	
UMaine	7.0	(2.3)	1.8	(2.8)	0.3	-	3.9
UMA	1.0	-	3.0	-	1.0	-	5.0
UMF	-	(2.5)	1.0	(1.5)	5.9	(6.4)	(3.5)
UMFK	2.0	-	0.5	(3.75)	-	-	(1.25)
UMM	-	(1.0)	-	(1.0)	-	-	(2.0)
UMPI	-	-	-	-	-	-	-
USM	5.5	(3.0)	5.0	(1.0)	-	-	6.5
Gov.	-	-	-	-	-	-	-
Univ Svs	-	-	2.0	(1.0)	-	-	1.0
Total	15.5	(8.8)	13.3	(11.1)	7.2	(6.4)	9.7

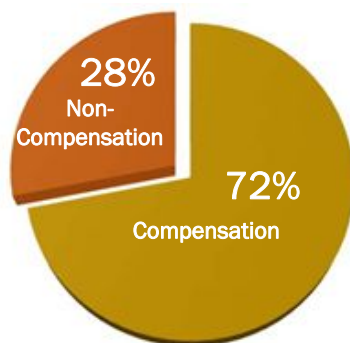


## FY20 Proposed Budget: E&G

### FY20 Revenue



### FY20 Expense



14

	FY19 Base	FY20 Proposed	\$ Change	% Change
<b>Revenue:</b>				
Tuition & Fee Revenue	\$ 314,176,615	\$ 331,118,927	\$ 16,942,312	5.4%
Tuition Waivers/Scholarships	(84,371,144)	(90,894,408)	(6,523,264)	7.7%
State Appropriation	188,920,534	198,159,700	9,239,166	4.9%
Sales/Services/Other	40,578,955	40,587,767	8,812	-%
<b>Total Revenue</b>	<b>459,304,960</b>	<b>478,971,986</b>	<b>19,667,026</b>	<b>4.3%</b>
<b>Expense:</b>				
Personnel Expense	342,272,043	354,232,518	11,960,475	3.5%
Fuel & Electricity	15,491,893	16,269,107	777,214	5.0%
Supplies & Services	30,974,837	32,035,919	1,061,082	3.4%
Travel	6,355,216	6,409,622	54,406	0.9%
Memberships, Contributions & Sponsorships	1,547,972	1,518,633	(29,339)	-1.9%
Maintenance & Alterations	11,669,339	12,071,251	401,912	3.4%
Interest Expense	1,712,822	1,554,864	(157,958)	-9.2%
Depreciation	30,787,221	32,347,555	1,560,334	5.1%
Other Expenses & Transfers	32,521,186	36,048,008	3,526,822	10.8%
<b>Total Operating Expenses &amp; Transfers</b>	<b>473,332,529</b>	<b>492,487,477</b>	<b>19,154,948</b>	<b>4.0%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (14,027,569)</b>	<b>\$ (13,515,491)</b>	<b>\$ 512,078</b>	<b>-3.7%</b>
<b>Modified Cash Flow:</b>				
Add back Depreciation	30,787,221	32,347,555	1,560,334	5.1%
Less Capital Expenditures	(9,711,654)	(9,403,803)	307,851	-3.2%
Less Capital Reserve Funding	(4,408,061)	(3,378,140)	1,029,921	-23.4%
Less Debt Service Principal	(3,954,187)	(4,052,229)	(98,042)	2.5%
<b>Net Change Before Other Adj &amp; Transfers</b>	<b>(1,314,250)</b>	<b>1,997,892</b>	<b>3,312,142</b>	
Transfer from/(to) Admin Savings Rsv	(3,301,740)	(5,002,025)	(1,700,285)	
Transfer from/(to) Budget Stabilization	500,000	1,000,000	500,000	
<b>Net Change Subtotal</b>	<b>(4,115,990)</b>	<b>(2,004,133)</b>	<b>2,111,857</b>	
Other Strategic Transfers from/(to) Reserves	4,082,963	2,122,341	(1,960,622)	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ (33,027)</b>	<b>\$ 118,208</b>	<b>\$ 151,235</b>	

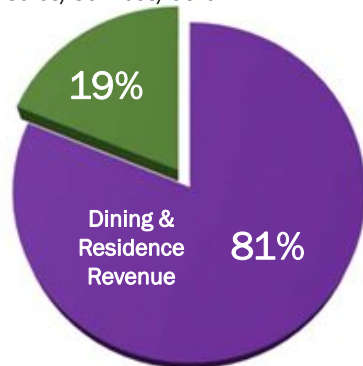




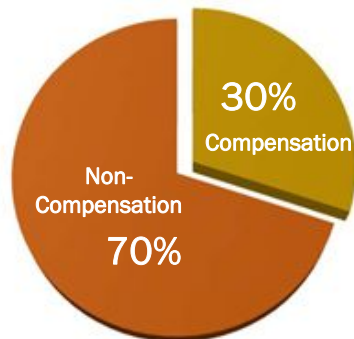
## FY20 Proposed Budget: Auxiliary

### FY20 Revenue

Sales/Services/Other



### FY20 Expense

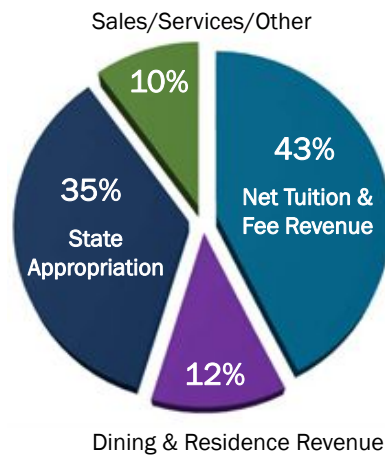


	FY19 Base	FY20 Proposed	\$ Change	% Change
<b>Revenue:</b> Tuition & Fee Revenue	\$ 1,227,714	\$ 1,227,714	\$ -	0.0%
Dining & Residence Revenue	65,474,989	68,153,741	2,678,752	4.1%
Tuition Waivers/Scholarships	(2,252,044)	(2,326,379)	(74,335)	3.3%
Sales/Services/Other	17,197,920	15,483,729	(1,714,191)	-10.0%
<b>Total Revenue</b>	<b>81,648,579</b>	<b>82,538,805</b>	<b>890,226</b>	<b>1.1%</b>
<b>Expense:</b> Personnel Expense	22,643,349	24,128,435	1,485,086	6.6%
Fuel & Electricity	6,042,885	6,097,572	54,687	0.9%
Supplies & Services	24,880,439	23,320,178	(1,560,261)	-6.3%
Travel	128,380	124,720	(3,660)	-2.9%
Memberships, Contributions & Sponsorships	20,772	22,597	1,825	8.8%
Maintenance & Alterations	4,417,770	5,034,695	616,925	14.0%
Interest Expense	3,697,167	3,453,982	(243,185)	-6.6%
Depreciation	6,255,906	6,096,604	(159,302)	-2.5%
Other Expenses & Transfers	10,653,524	11,973,865	1,320,341	12.4%
<b>Total Operating Expenses &amp; Transfers</b>	<b>78,740,192</b>	<b>80,252,648</b>	<b>1,512,456</b>	<b>1.9%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 2,908,387</b>	<b>\$ 2,286,157</b>	<b>\$ (622,230)</b>	<b>-21.4%</b>
<b>Modified Cash Flow:</b> Add back Depreciation	6,255,906	6,096,604	(159,302)	-2.5%
Less Capital Expenditures	(2,284,887)	(1,652,194)	632,693	-27.7%
Less Capital Reserve Funding	(1,387,413)	(1,157,051)	230,362	-16.6%
Less Debt Service Principal	(5,429,046)	(5,795,428)	(366,382)	6.7%
<b>Net Change Before Other Adj &amp; Transfers</b>	<b>62,947</b>	<b>(221,912)</b>	<b>(284,859)</b>	
Other Strategic Transfers from/(to) Reserves	86,929	209,672	122,743	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 149,876</b>	<b>\$ (12,240)</b>	<b>\$ (162,116)</b>	

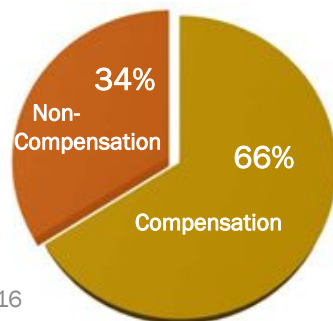


## FY20 Proposed Budget: E&G and Auxiliary

### FY20 Revenue



### FY20 Expense



	FY19 Base	FY20 Proposed	\$ Change	% Change
<b>Revenue:</b>				
Tuition & Fee Revenue	\$ 315,404,329	\$ 332,346,641	\$ 16,942,312	5.4%
Dining & Residence Revenue	65,474,989	68,153,741	2,678,752	4.1%
Tuition Waivers/Scholarships	(86,623,188)	(93,220,787)	(6,597,599)	7.6%
State Appropriation	188,920,534	198,159,700	9,239,166	4.9%
Sales/Services/Auxiliary	57,776,875	56,071,496	(1,705,379)	-3.0%
<b>Total Revenue</b>	<b>540,953,539</b>	<b>561,510,791</b>	<b>20,557,252</b>	<b>3.8%</b>
<b>Expense:</b>				
Personnel Expense	364,915,392	378,360,953	13,445,561	3.7%
Fuel & Electricity	21,534,778	22,366,679	831,901	3.9%
Supplies & Services	55,855,276	55,356,097	(499,179)	-0.9%
Travel	6,483,596	6,534,342	50,746	0.8%
Memberships, Contributions & Sponsorships	1,568,744	1,541,230	(27,514)	-1.8%
Maintenance & Alterations	16,087,109	17,105,946	1,018,837	6.3%
Interest Expense	5,409,989	5,008,846	(401,143)	-7.4%
Depreciation	37,043,127	38,444,159	1,401,032	3.8%
Other Expenses & Transfers:	43,174,710	48,021,873	4,847,163	11.2%
<b>Total Operating Expenses &amp; Transfers</b>	<b>552,071,721</b>	<b>572,740,125</b>	<b>20,667,404</b>	<b>3.7%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (11,119,182)</b>	<b>\$ (11,229,334)</b>	<b>\$ (110,152)</b>	<b>1.0%</b>
<b>Modified Cash Flow:</b>				
Add back Depreciation	37,043,127	38,444,159	1,401,032	3.8%
Less Capital Expenditures	(11,996,541)	(11,055,997)	940,544	-7.8%
Less Capital Reserve Funding	(5,795,474)	(4,535,191)	1,260,283	-21.7%
Less Debt Service Principal	(9,383,233)	(9,847,657)	(464,424)	4.9%
<b>Net Change Before Other Adj &amp; Transfers</b>	<b>(1,251,303)</b>	<b>1,775,980</b>	<b>3,027,283</b>	
Transfer from/(to) Admin Savings Rsrv	(3,301,740)	(5,002,025)	(1,700,285)	
Transfer from/(to) Budget Stabilization	500,000	1,000,000	500,000	
<b>Net Change Subtotal</b>	<b>(4,053,043)</b>	<b>(2,226,045)</b>	<b>1,826,998</b>	
Other Strategic Transfers from/(to) Reserves	4,169,892	2,332,013	(1,837,879)	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 116,849</b>	<b>\$ 105,968</b>	<b>\$ (10,881)</b>	



## Quasi-Independent State Entities Budget Requirement

- Public Law 2011, Chapter 616 mandates:
  - Board of Trustees approval of the annual budget for travel, meals, and entertainment costs.
  - Board of Trustees approval of the annual budget for contribution expenses – defined by this Public Law as membership dues & fees, gifts, donations, and sponsorships.
  - Periodic reporting of the actual travel and contribution costs by the UMS to the Board of Trustees.
  - Annual reporting to the Legislature by the UMS of contributions made to persons in the preceding year that were greater than \$1,000, and the total contributed to each.

### FY20 Budget (\$000's)

Fund	Travel, Meals, Entertainment	Memberships, Gifts, Donations, & Sponsorships
E&G/Auxiliary	\$ 6,534	\$ 1,541
Restricted/Other	5,067	611
<b>Total</b>	<b>\$11,601</b>	<b>\$ 2,152</b>

E&G/Auxiliary are included in the proposed operating budgets. Restricted/Other includes grants & contracts, MEIF, Coop. Ext, etc. and is not included in the operating budgets.

- UMS “Use of University funds” policy generally prohibits charitable contributions; Sponsorships which advance the University’s mission are allowed. UMS “Travel & Expense” policy defines what constitutes allowable travel, meals, and entertainment expenses.



## Appendix

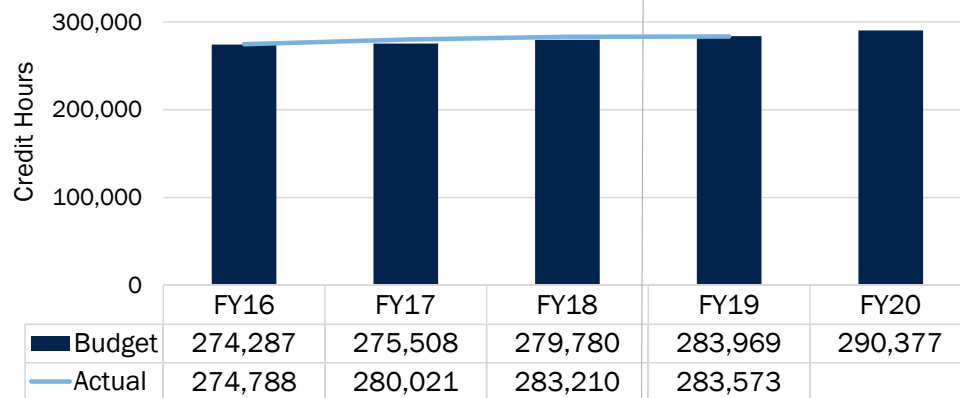
- Detailed Information by Campus for:
  - FY20 Enrollment & Residence Hall Occupancy
  - FY20 E&G and Auxiliary Capital Investments from Operations
  - FY20 Operating Budgets
  - FY20 Student Cost Report





## UMaine Enrollment

### Total Credit Hour Enrollment (incl. EC)



### FY20 Enrollment Budget

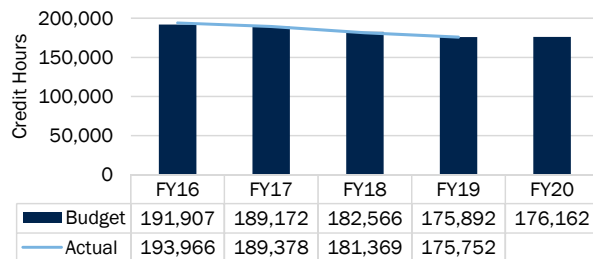
Budget      Actual

2.3%  
above  
FY19

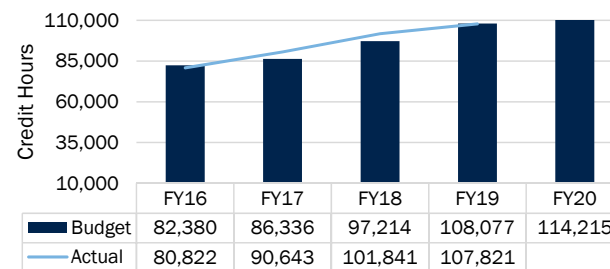
2.4%  
above  
FY19



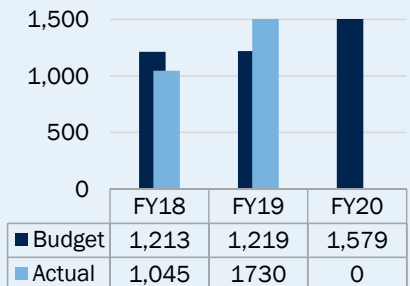
### In-State



### Out-of-State



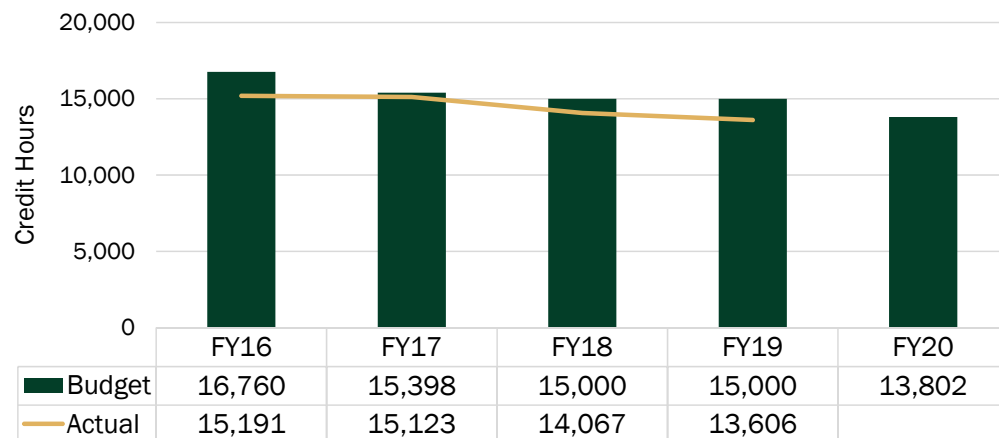
### Early College





## UMM Enrollment

### Total Credit Hour Enrollment (incl. EC)



### FY20 Enrollment Budget

Budget      Actual

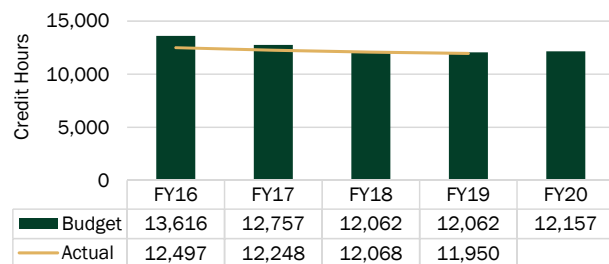
8.0%  
below  
FY19



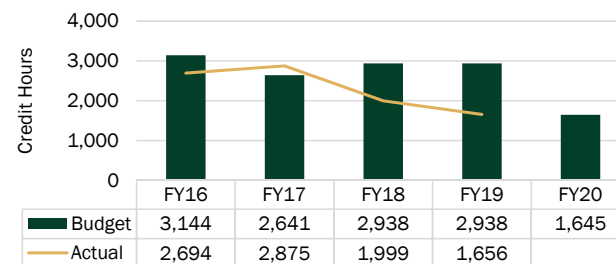
1.4%  
above  
FY19



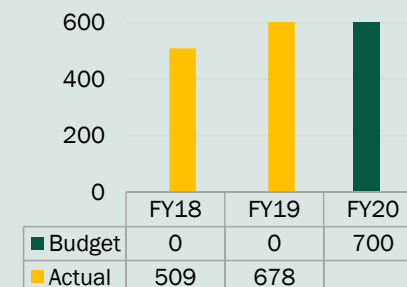
### In-State



### Out-of-State



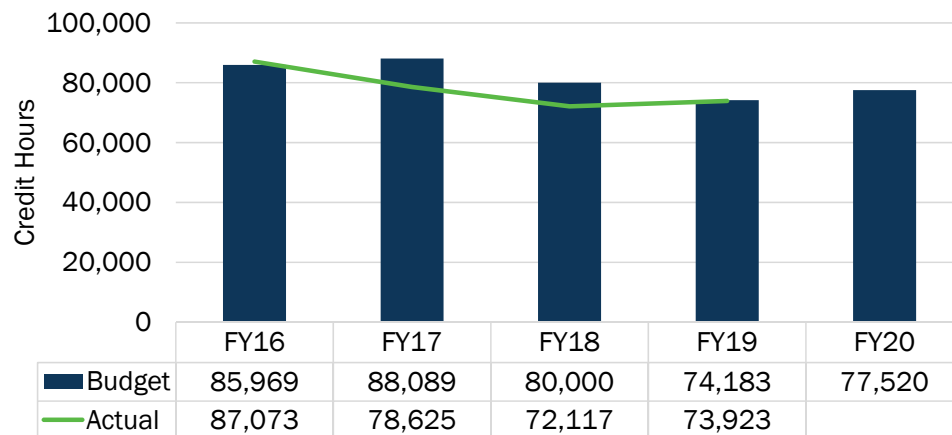
### Early College



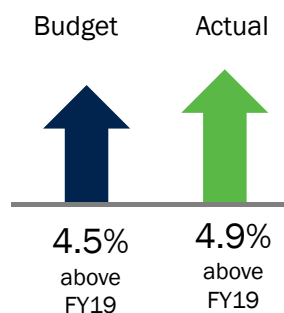


## UMA Enrollment

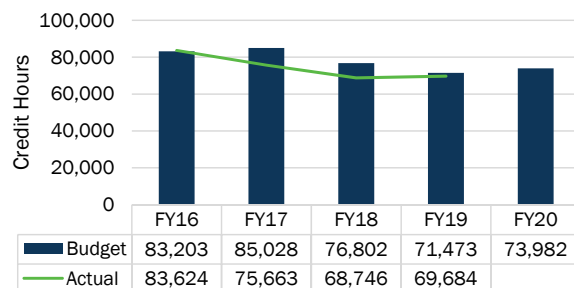
### Total Credit Hour Enrollment \* (incl. EC)



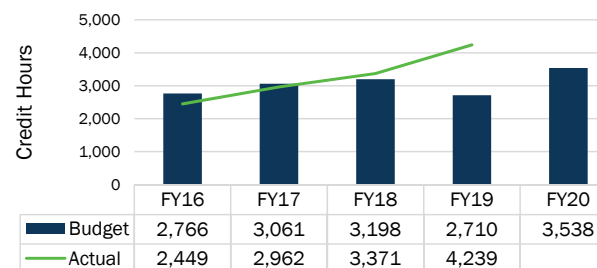
### FY20 Enrollment Budget



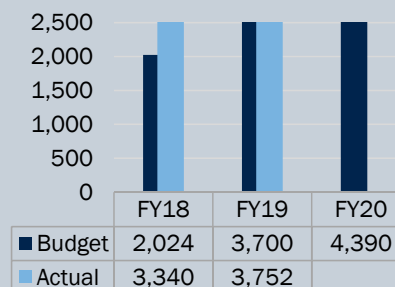
### In-State



### Out-of-State



### Early College

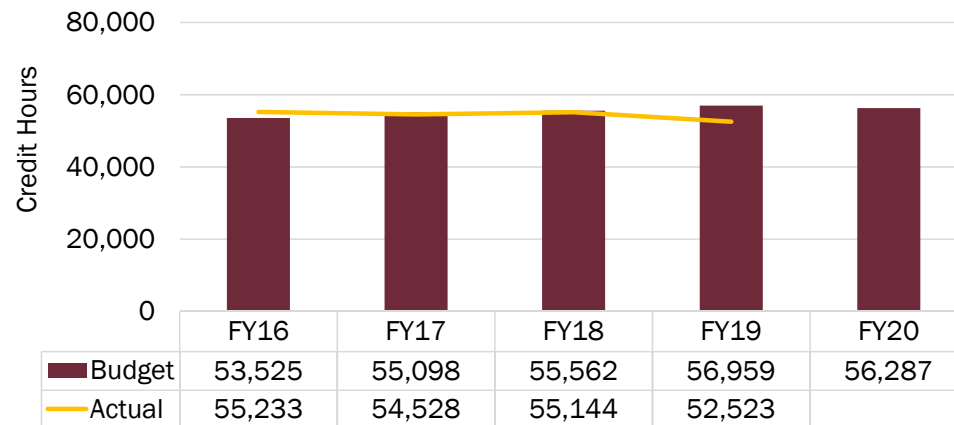




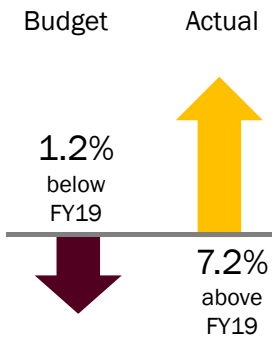


## UMF Enrollment

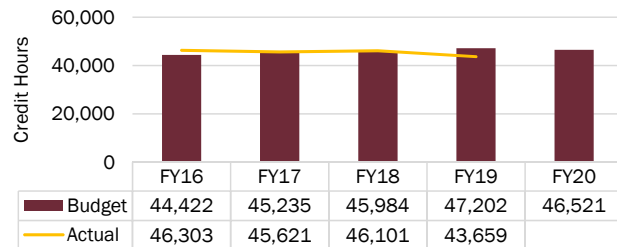
### Total Credit Hour Enrollment (incl. EC)



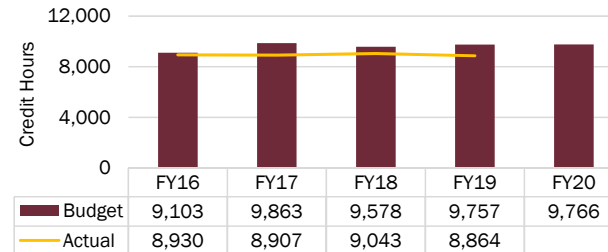
### FY20 Enrollment Budget



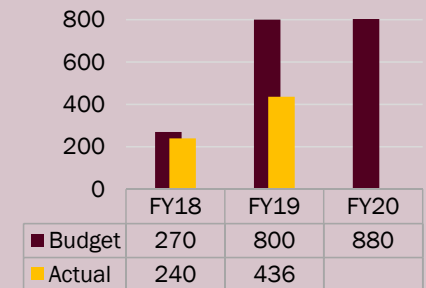
### In-State



### Out-of-State



### Early College

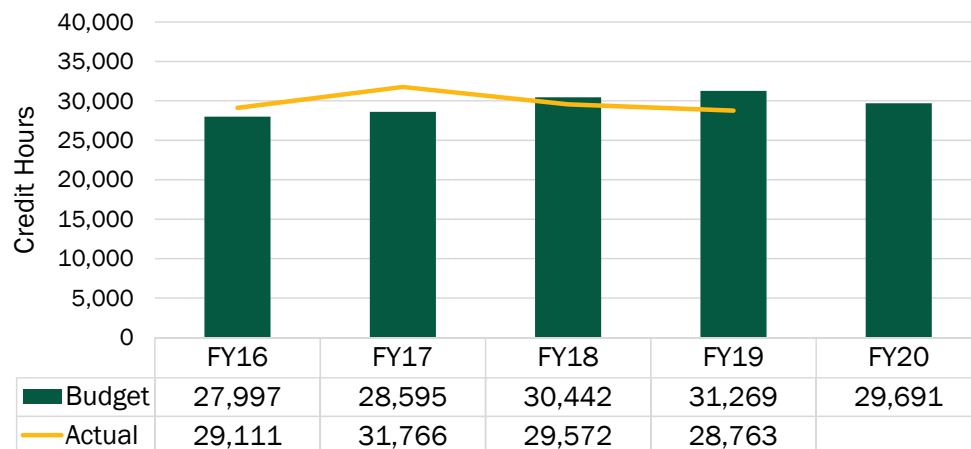




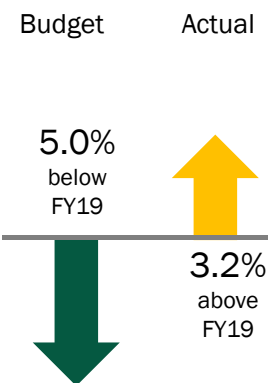


## UMFK Enrollment

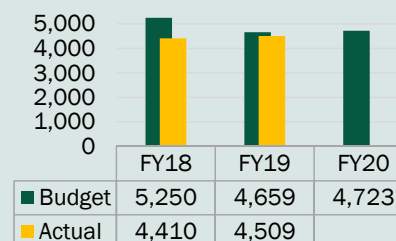
### Total Credit Hour Enrollment (incl. EC & AP)



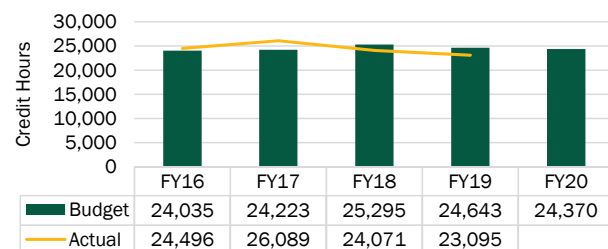
### FY20 Enrollment Budget



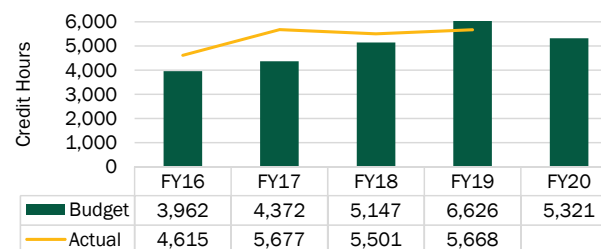
### Early College



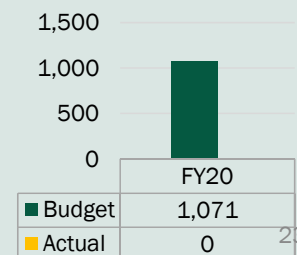
### In-State



### Out-of-State



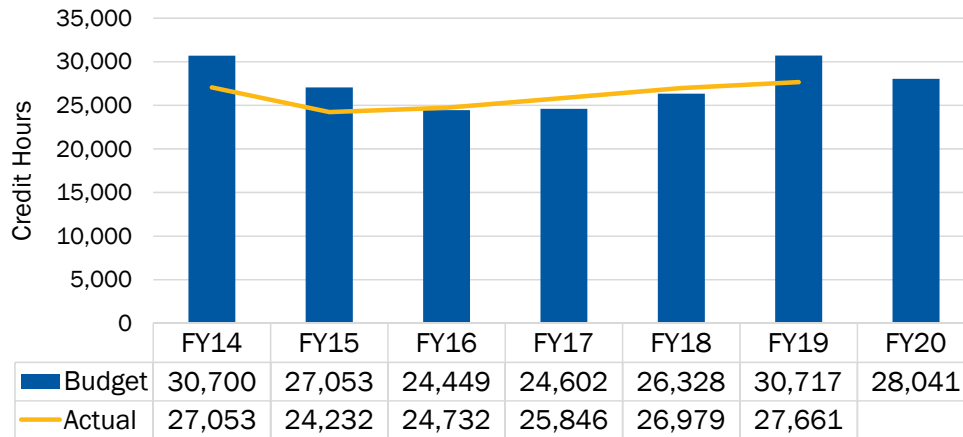
### AP





## UMPI Enrollment

### Total Credit Hour Enrollment (incl. EC, CBE, AP)



\*Note: FY19 credit hours do not include CBE Spring 2<sup>nd</sup> session

### FY20 Enrollment Budget

Budget      Actual

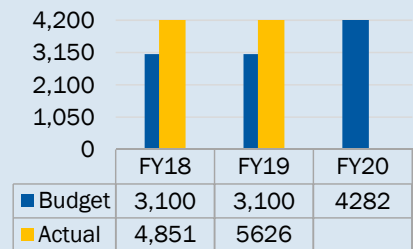
8.7%  
below  
FY19



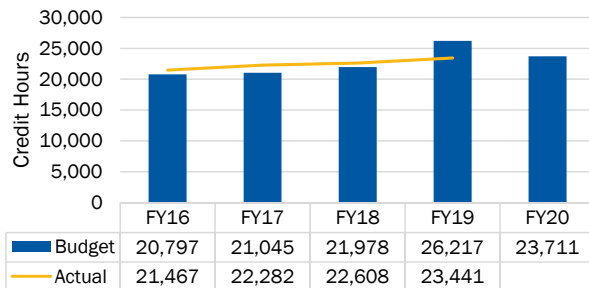
1.4%  
above  
FY19



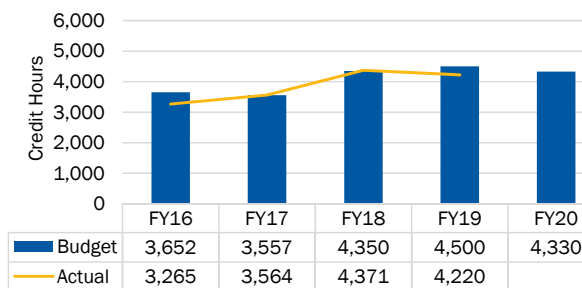
### Early College



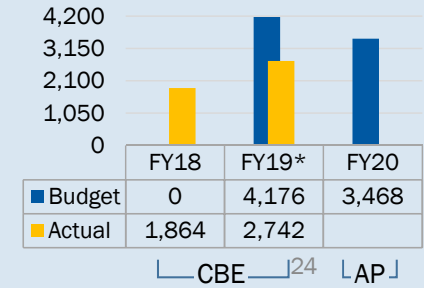
### In-State



### Out-of-State



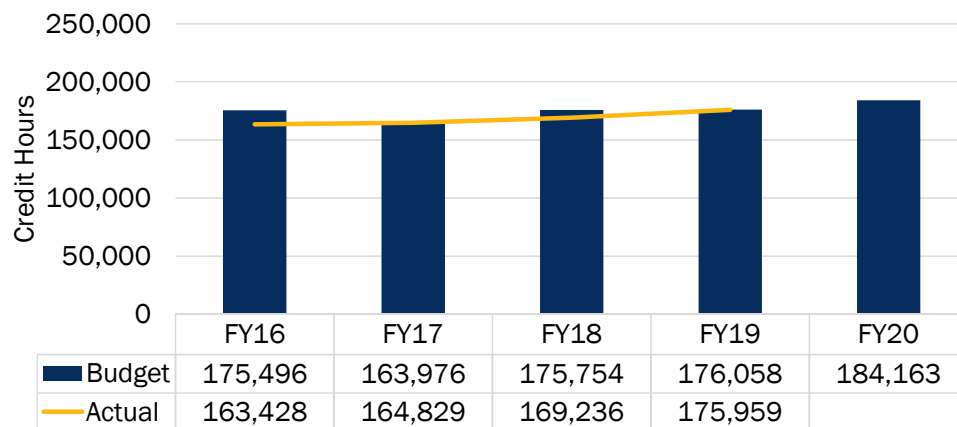
### CBE/AP





## USM Enrollment

### Total Credit Hour Enrollment (incl. EC)



### FY20 Enrollment Budget

Budget      Actual

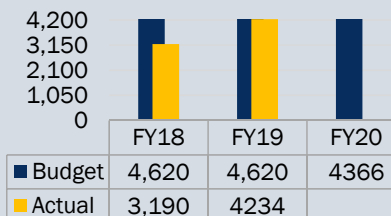


4.6%  
above  
FY19

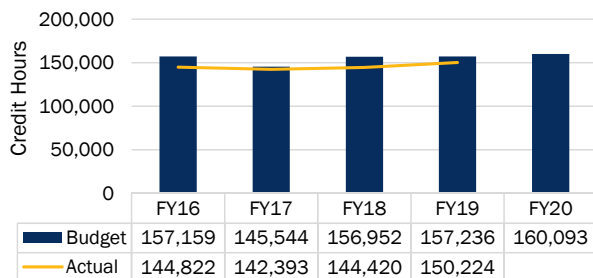
4.7%  
above  
FY19



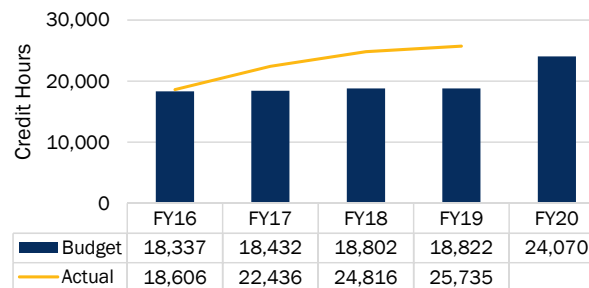
### Early College



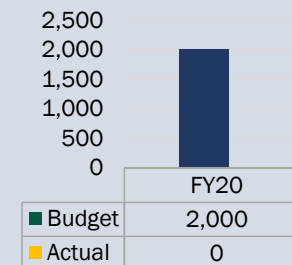
### In-State



### Out-of-State



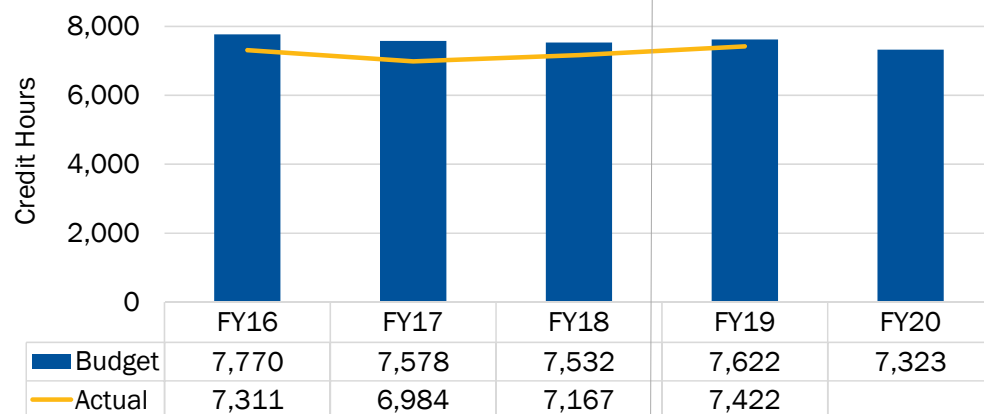
### AP





## UM Law Enrollment

### Total Credit Hour Enrollment



### FY20 Enrollment Budget

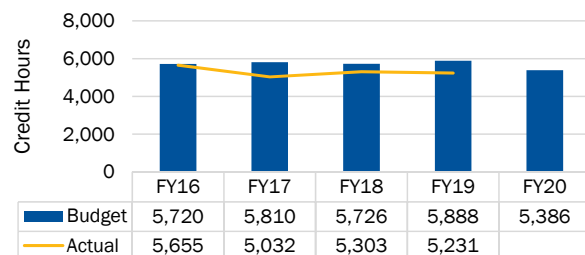
Budget      Actual

3.9%  
below  
FY19

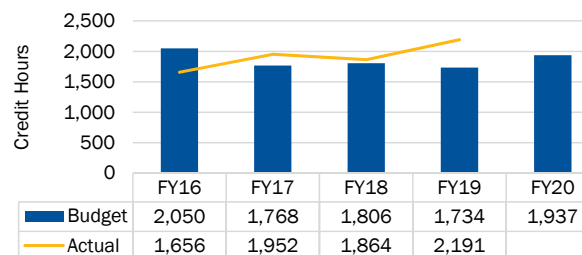
1.3%  
below  
FY19



### In-State

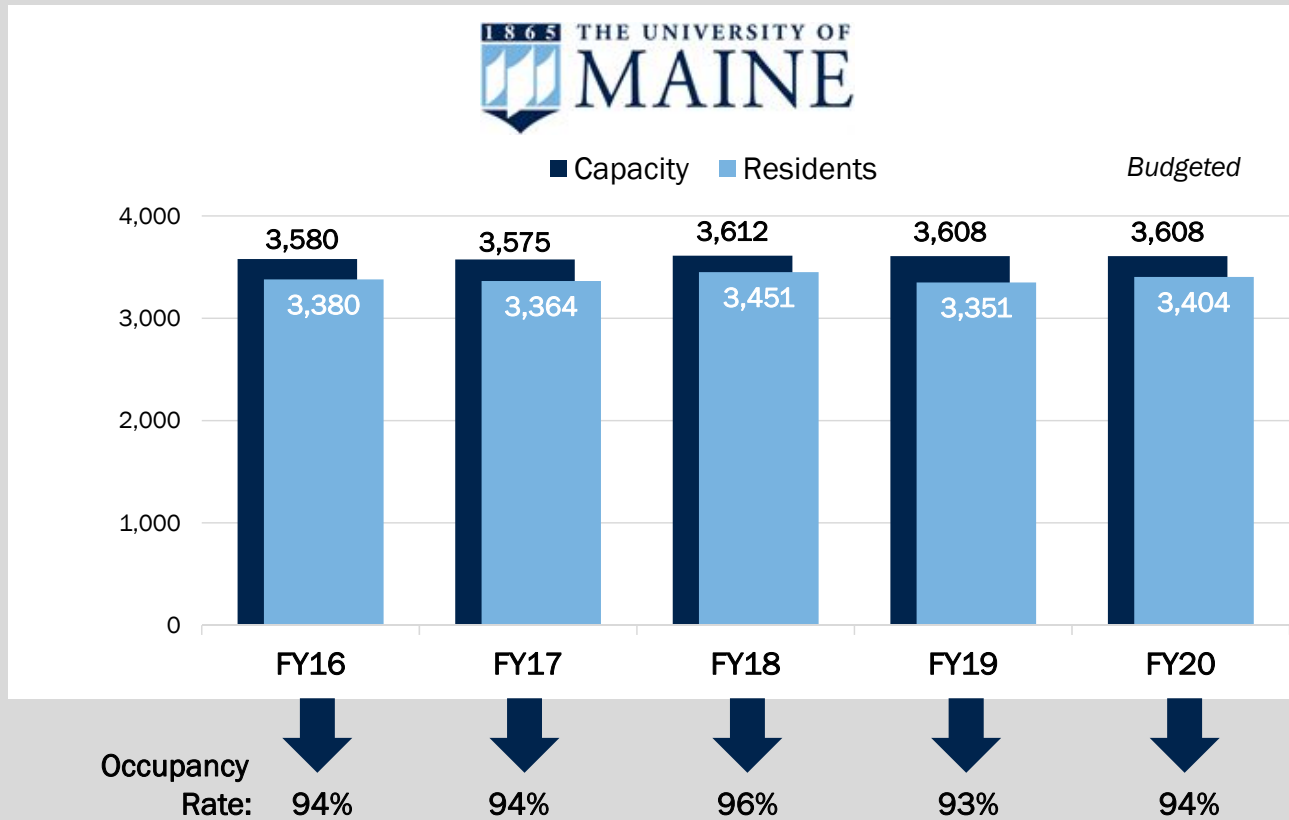


### Out-of-State



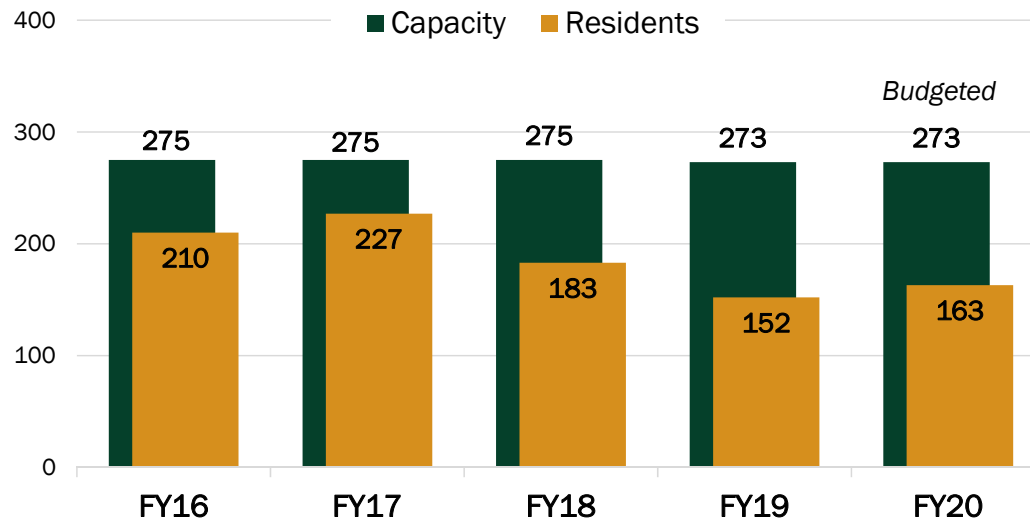


## Residence Hall Occupancy





## Residence Hall Occupancy



Occupancy  
Rate:

76%

83%

67%

56%

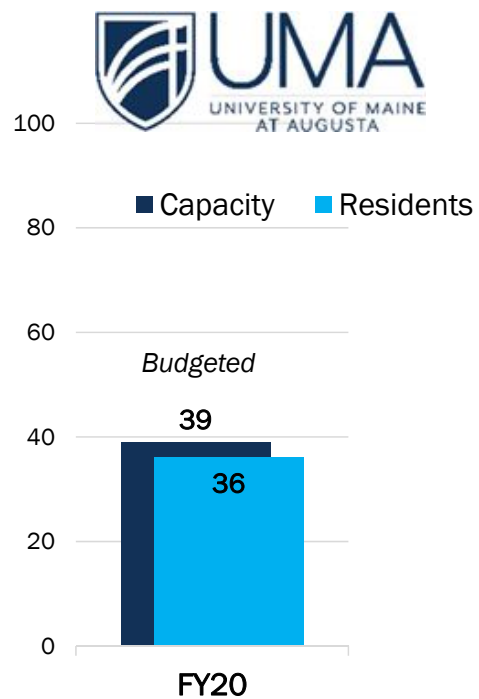
60%







## Residence Hall Occupancy



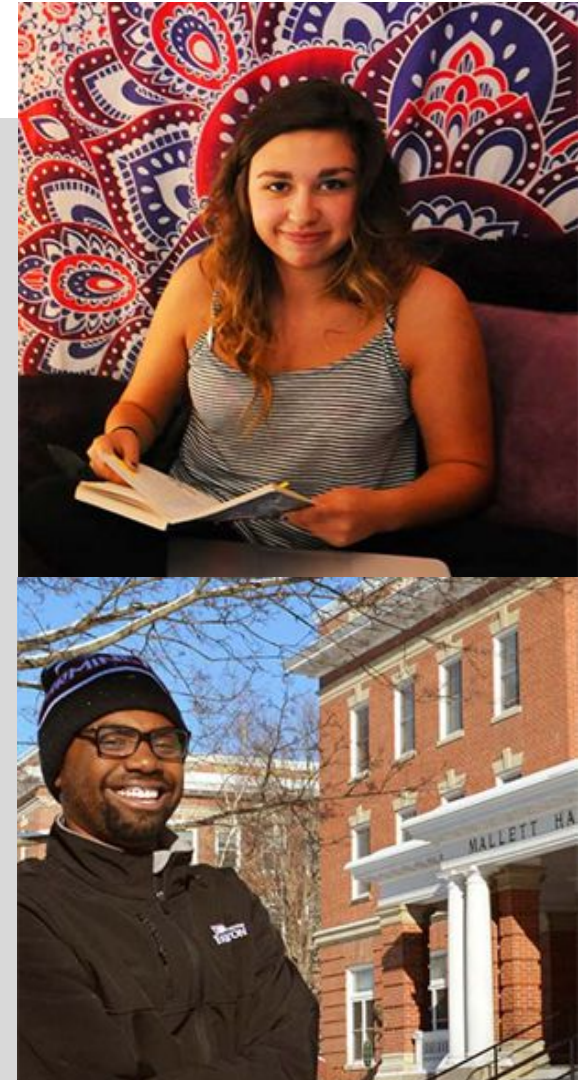
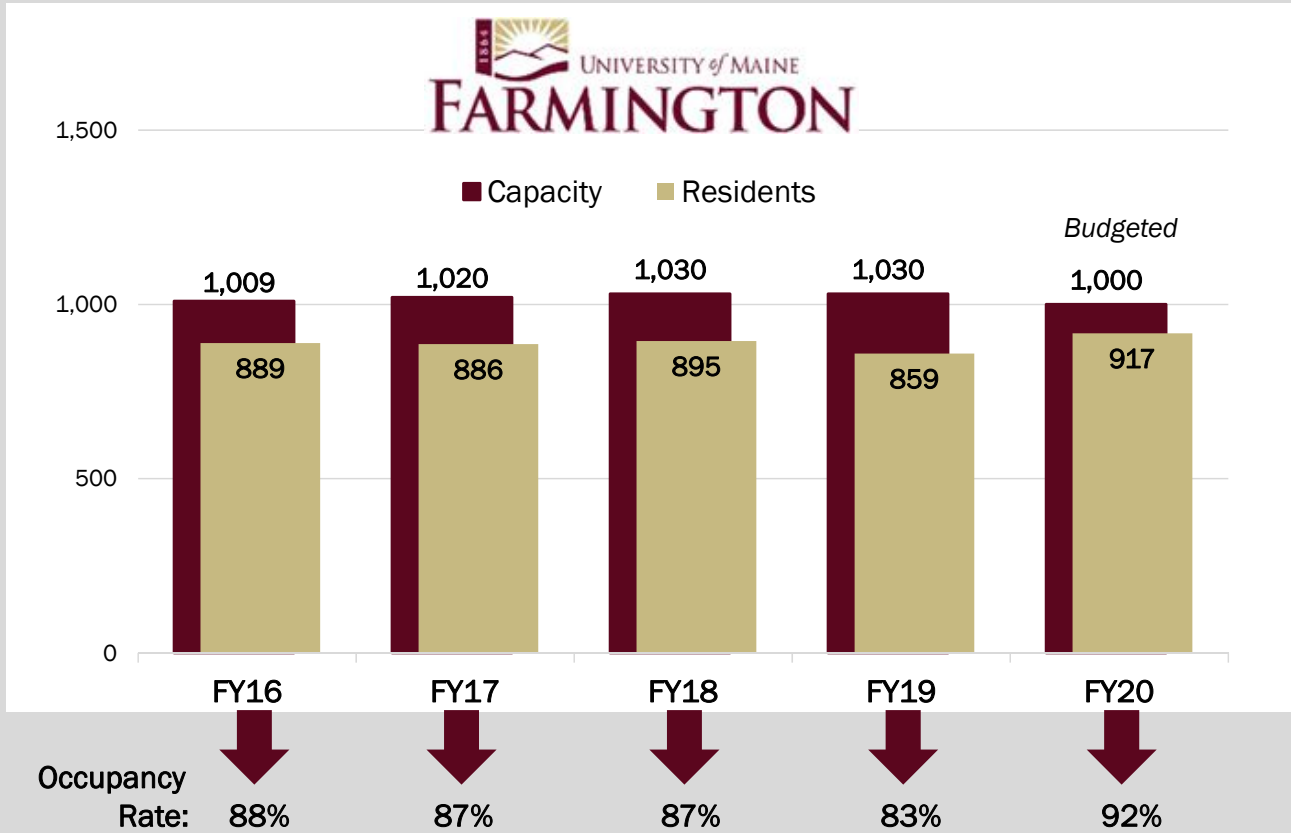
**FY20**

**Occupancy Rate: 92%**





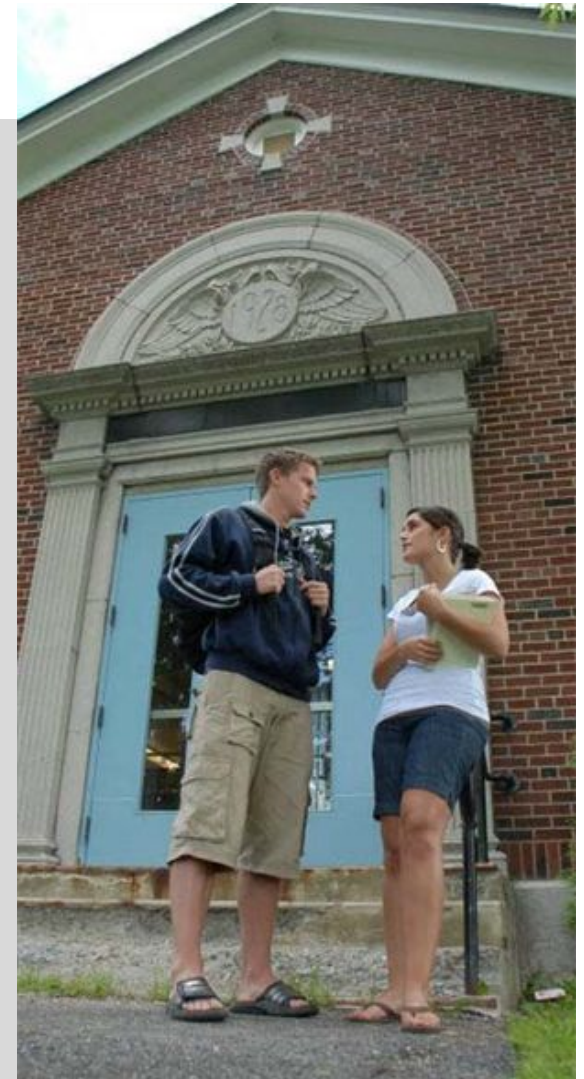
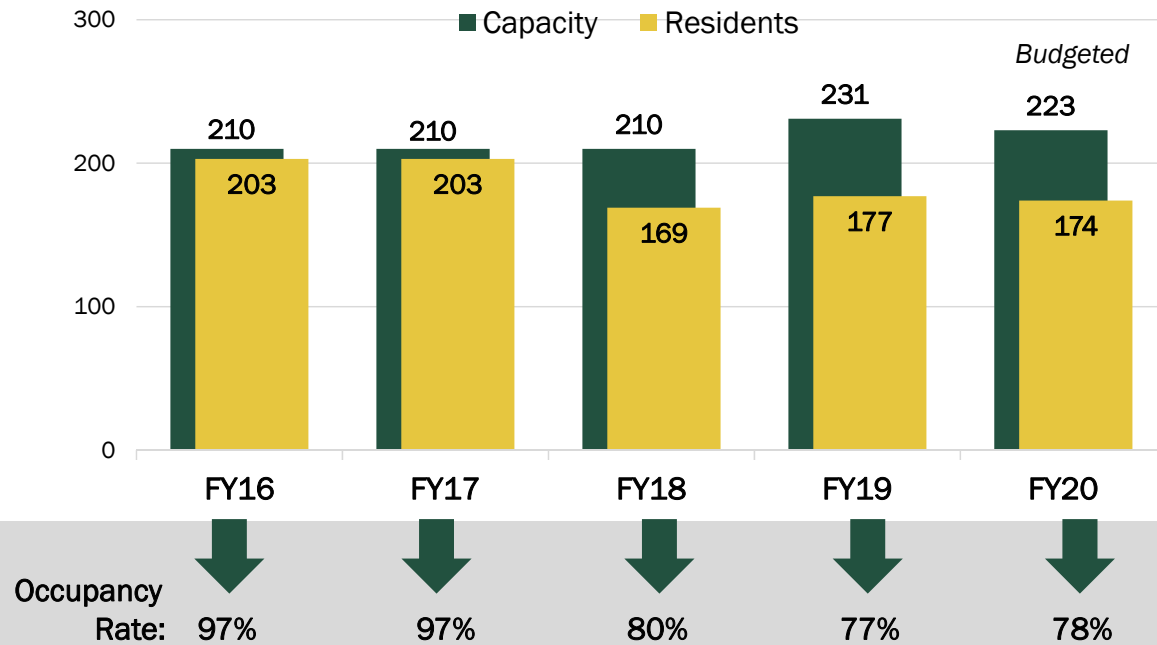
## Residence Hall Occupancy





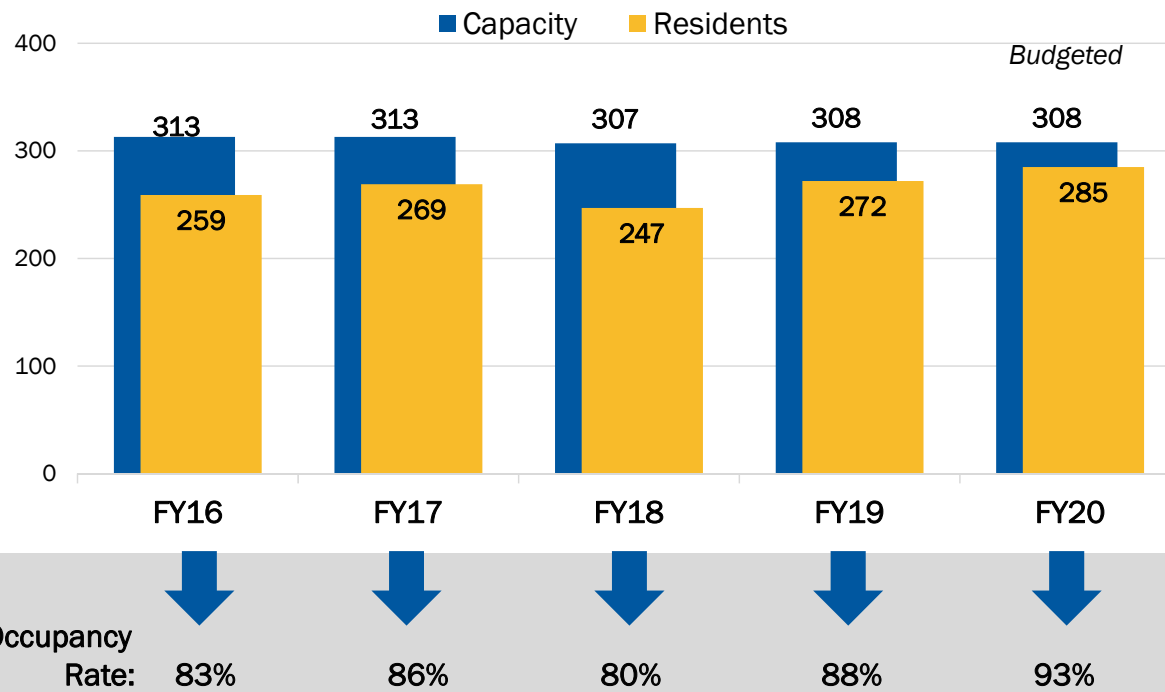


## Residence Hall Occupancy



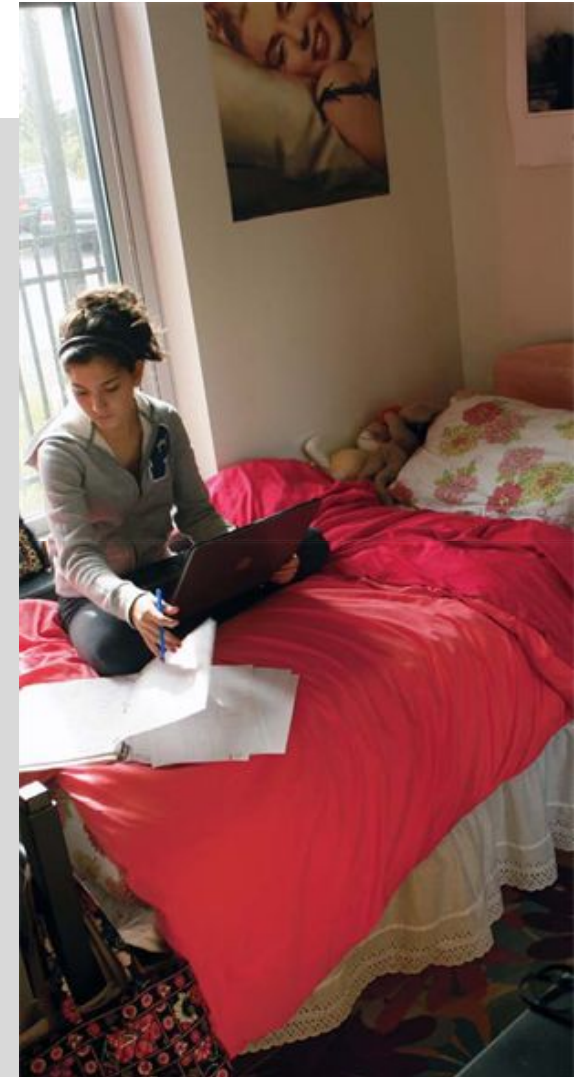
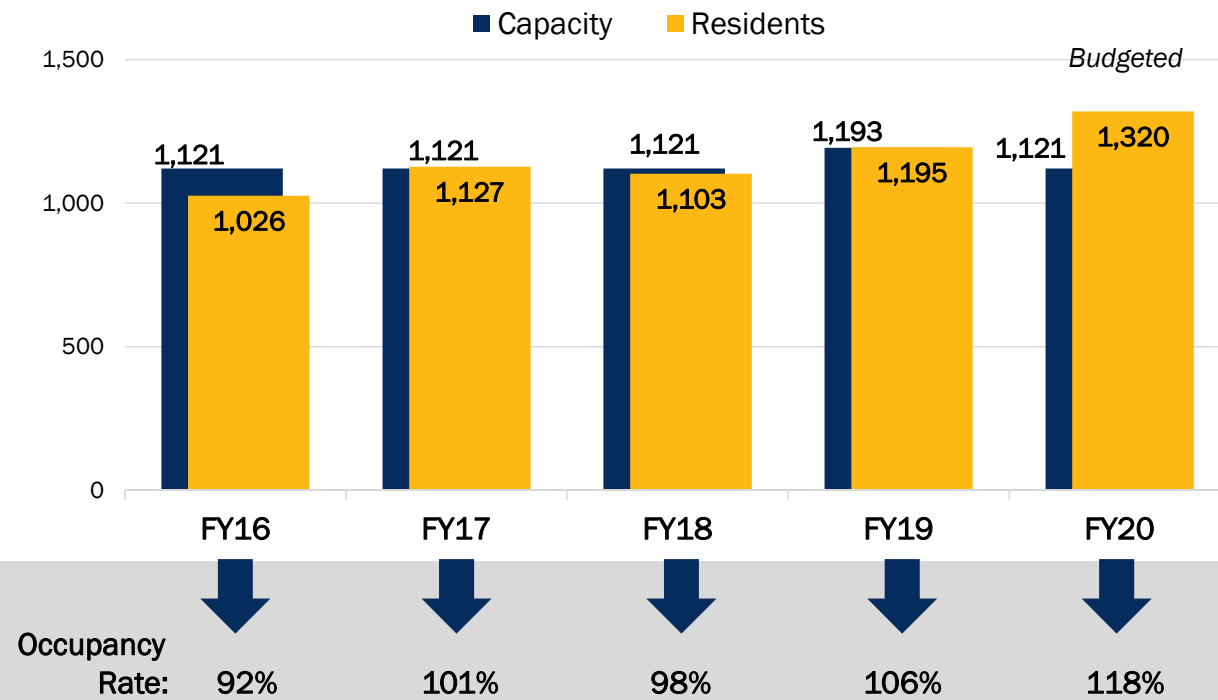


## Residence Hall Occupancy





## Residence Hall Occupancy



FY20 E&G and Auxiliary Capital Investments from Operations				
	PROJECT DESCRIPTION	FY20 Budget		
		E&G	AUXILIARY	TOTAL
UMaine				
Maine special projects	UMaine campus special projects	\$ 487,582	\$ -	
Deering Hall roof replacement	Deering Hall roof replacement	200,000	-	
SA10 Steam pit repair	SA10 Steam pit repair	400,000	-	
Hitchner Lab 263 Renovaiton	Renovate/build out unfinished laboratory space in room 263.	50,000	-	
Alfond Arena FD	Annual Alfond	48,500	-	
Memorial Gym FD	Annual Memorial Gym	140,000	-	
Classroom P&P projects	Various classroom projects - per campus space committee	100,000	-	
Annual Funded Depreciation	Various Projects - Annual Funded Depreciation	1,529,972	-	
CCAR-Hatchery Roof Replacement	Replacement of Roof on Hatchery building at CCAR	562,000	-	
Balentine Renovations	Balentine Hall Renovations per AUX plan	-	182,889	
Hart Hall Ethernet cable upgrade	Install CAT 6 Ethernet cable in Hart Hall	-	300,000	
Gannett Hall Ethernet cable upgrade	Install CAT 6 Ethernet cable in Gannett Hall	-	150,000	
Edith Patch renovations	Edith Patch Hall renovations	-	200,000	
Vehicles	-	416,531	129,085	
Equipment	-	1,256,608	320,726	
Capital Reserve Funding	-	500,000	1,137,951	
TOTAL		\$ 5,691,193	\$ 2,420,651	\$ 8,111,844
UMM				
UMM Campus	Various Projects	\$ 11,408	\$ -	\$ 11,408
TOTAL		\$ 11,408	\$ -	
UMA				
Various Campus Projects	Funds to be used as contingency for unexpected capital expenses	\$ 12,754	\$ -	
HVAC updates	Replace a/c units above 212 and IT area	150,000	-	
Belfast Hall Roof Replacement	Replace roof	150,000	-	
Classroom Equipment Upgrades	Classroom Equipment Replacement and Updates	75,000	-	
Danforth Gallery Update	Update Danforth Gallery	300,000	-	
Equipment	-	36,679	-	
TOTAL		\$ 724,433	\$ -	\$ 724,433
UMF				
Roof Replacement Olsen Student Center	Building Envelope	\$ 424,030	\$ -	
Roof Replacement Mallett Hall	Building Envelope	-	110,236	
Equipment		-	115,000	
TOTAL		\$ 424,030	\$ 225,236	\$ 649,266
UMFK				
Cyr Hall Roof Replacement	Remove ane replace roof, adding steel supports	\$ 225,000	\$ -	
Vehicle	-	-	21,408	
TOTAL		\$ 225,000	\$ 21,408	\$ 246,408

FY20 E&G and Auxiliary Capital Investments from Operations				
	PROJECT DESCRIPTION	FY20 Budget		
		E&G	AUXILIARY	TOTAL
UMPI				
UMPI Campus - Houlton Center	Houlton Center Exterior Facade	\$ 40,000	\$ -	
UMPI Campus - Grounds	Paving Upgrades	30,000	-	
Preble Hall	Coal Shed Removal	67,383	-	
UMPI Campus - Safety/Code	Campus Access Control	30,000	-	
Emerson Hall	Emerson Kitchen	-	25,000	
Park Hall	Park Kitchen	-	25,000	
Merriman Hall	Merriman Kitchen	-	20,000	
Emerson Hall - Safety/Code	Lounge Abatement	-	30,000	
Capital Reserve Funding	-	6,369	19,100	
TOTAL		\$ 173,752	\$ 119,100	\$ 292,852
USM				
Abromson Skywalk Repairs	Structural and cosmetic repairs	\$ 50,000	\$ -	
Brooks Egress and Patio Renovation	Address Patio code egress issues	420,000	-	
Ice Arena MEP System Upgrades	Upgrade to MEP Systems	300,000	-	
Gorham Underground Util Rep	Repair Underground utility systems	50,000	-	
Portland Exterior Lighting Upg	Energy efficient lighting upgrades	250,000	-	
Steam Distribution System	Repair to underground utility lines	50,000	-	
Robie Andrews Transformer Repl	Replace the transformer	438,500	-	
Equipment	-	142,056	22,850	
TOTAL		\$ 1,700,556	\$ 22,850	
UNIVERSITY SERVICES - IT				
Learning Management Systems	Learning Management Systems	\$ 500,000	\$ -	
Service Management	Service management/ticketing/etc	250,000	-	
Admin Video Conf. Rm System Refresh	Replace approx 8 antiquated FX systems from initial Admin VC deployment	80,000	-	
IP Address Management	IP Address Management / DNS / DHCP Solutions	500,000	-	
IP Telephone Conversion	IP Telephone Conversion / LAN upgrade (UMF, UMPI, UMM, USM)	1,100,000	-	
Optical Network Redundant Power Systems	Optical Network Redundant Power Systems	200,000	-	
Equipment	-	459,800	-	
Capital Reserve Funding	-	741,771	-	
TOTAL		\$ 3,831,571	\$ -	
GRAND TOTAL		\$ 12,781,943	\$ 2,809,245	\$ 15,591,188

Implementation of IT capital projects (excluding equipment) pending return on investment income

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE SYSTEM  
FY20 Proposed Budget  
E&G

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 270,027,837	\$ 280,024,068	\$ 299,124,061	\$ 314,176,615	\$ 331,118,927	\$ 16,942,312	5.4%
Dining & Residence Revenue	13,754	15,260	15,973	-	-	-	-%
Tuition Waivers/Scholarships	(63,182,042)	(67,944,934)	(80,737,436)	(84,371,144)	(90,894,408)	(6,523,264)	7.7%
Net Student Charges Revenue	206,859,550	212,094,394	218,402,598	229,805,471	240,224,519	10,419,048	4.5%
State Appropriation	179,159,600	189,670,534	188,920,534	188,920,534	198,159,700	9,239,166	4.9%
Indirect Cost Recovery	11,544,913	12,355,375	12,277,559	12,669,319	13,299,319	630,000	5.0%
Investment Income/Gifts	2,742,771	10,475,233	7,005,550	5,464,275	4,428,767	(1,035,508)	-19.0%
Sales/Services/Auxiliary	25,086,745	23,524,325	23,738,945	22,445,361	22,859,681	414,320	1.8%
<b>Total Revenue</b>	<b>425,393,578</b>	<b>448,119,869</b>	<b>450,345,186</b>	<b>459,304,960</b>	<b>478,971,986</b>	<b>19,667,026</b>	<b>4.3%</b>
<b>Expenses</b>							
Personnel	307,307,620	313,705,749	324,479,801	342,272,043	354,232,518	11,960,475	3.5%
Fuel & Electricity	13,809,145	13,425,125	13,529,287	15,491,893	16,269,107	777,214	5.0%
Supplies & Services	26,945,662	31,155,067	32,951,197	31,021,607	32,054,919	1,033,312	3.3%
Shared Services	(437,534)	(59,908)	(29,905)	(46,770)	(19,000)	27,770	-59.4%
Travel	6,239,475	6,985,290	6,833,355	6,355,216	6,409,622	54,406	0.9%
Memberships, Contributions & Sponsorships	1,430,987	1,413,096	1,311,537	1,547,972	1,518,633	(29,339)	-1.9%
Maintenance & Alterations	12,845,705	12,415,256	12,882,090	11,669,339	12,071,251	401,912	3.4%
Interest	2,043,184	2,069,763	1,760,344	1,712,822	1,554,864	(157,958)	-9.2%
Depreciation	28,319,014	28,973,453	32,128,069	30,787,221	32,347,555	1,560,334	5.1%
Other Expenses & Transfers	29,890,905	30,335,359	30,517,093	32,521,186	36,048,008	3,526,822	10.8%
Pooled Costs - Benefits	30,114	666,425	(5,806,607)	-	-	-	-%
Pooled Costs - Insurance	(179,036)	(552,367)	(508,697)	-	-	-	-%
<b>Total Operating Expenses &amp; Transfers</b>	<b>428,245,243</b>	<b>440,532,308</b>	<b>450,047,563</b>	<b>473,332,529</b>	<b>492,487,477</b>	<b>19,154,948</b>	<b>4.0%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (2,851,666)</b>	<b>\$ 7,587,561</b>	<b>\$ 297,622</b>	<b>\$ (14,027,569)</b>	<b>\$ (13,515,491)</b>	<b>\$ 512,078</b>	<b>-3.7%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ (2,851,666)	\$ 7,587,561	\$ 297,622	\$ (14,027,569)	\$ (13,515,491)	\$ 512,078	-3.7%
Add Back Depreciation	28,319,014	28,973,453	32,128,069	30,787,221	32,347,555	1,560,334	5.1%
Less Capital Expenditures	(15,114,947)	(12,511,773)	(8,468,070)	(9,711,654)	(9,403,803)	307,851	-3.2%
Less Capital Reserve Funding	(2,705,868)	(3,337,729)	(5,017,317)	(4,408,061)	(3,378,140)	1,029,921	-23.4%
Less Debt Service Principal	(3,991,181)	(4,908,690)	(4,974,456)	(3,954,187)	(4,052,229)	(98,042)	2.5%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>3,655,352</b>	<b>15,802,822</b>	<b>13,965,848</b>	<b>(1,314,250)</b>	<b>1,997,892</b>	<b>3,312,142</b>	
Transfer from/(to) Administrative Savings Rsrv	(3,702,250)	(2,792,912)	(2,558,792)	(3,301,740)	(5,002,025)	(1,700,285)	
Transfer from/(to) Budget Stabilization	3,754,942	300,000	(1,724,680)	500,000	1,000,000	500,000	
<b>Net Change Subtotal</b>	<b>3,708,044</b>	<b>13,309,911</b>	<b>9,682,376</b>	<b>(4,115,990)</b>	<b>(2,004,133)</b>	<b>2,111,857</b>	
Other Strategic Transfers from/(to) Reserves	5,025,980	(5,488,601)	(5,400,949)	4,082,963	2,122,341	(1,960,622)	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 8,734,024</b>	<b>\$ 7,821,309</b>	<b>\$ 4,281,426</b>	<b>\$ (33,027)</b>	<b>\$ 118,208</b>	<b>\$ 151,235</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE SYSTEM  
FY20 Proposed Budget  
AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 1,161,453	\$ 1,126,277	\$ 1,133,614	\$ 1,227,714	\$ 1,227,714	\$ -	0.0%
Dining & Residence Revenue	60,921,844	62,206,592	63,826,481	65,474,989	68,153,741	2,678,752	4.1%
Tuition Waivers/Scholarships	(2,200,728)	(2,346,459)	(2,594,361)	(2,252,044)	(2,326,379)	(74,335)	3.3%
Net Student Charges Revenue	59,882,568	60,986,409	62,365,734	64,450,659	67,055,076	2,604,417	4.0%
State Appropriation	-	-	-	-	-	-	-%
Indirect Cost Recovery	-	-	-	-	-	-	-%
Investment Income/Gifts	-	-	-	-	-	-	-%
Sales/Services/Auxiliary	17,086,989	18,004,628	17,045,583	17,197,920	15,483,729	(1,714,191)	-10.0%
<b>Total Revenue</b>	<b>76,969,557</b>	<b>78,991,037</b>	<b>79,411,316</b>	<b>81,648,579</b>	<b>82,538,805</b>	<b>890,226</b>	<b>1.1%</b>
<b>Expenses</b>							
Personnel	20,051,212	20,936,420	21,616,272	22,643,349	24,128,435	1,485,086	6.6%
Fuel & Electricity	5,409,897	5,668,679	5,706,171	6,042,885	6,097,572	54,687	0.9%
Supplies & Services	24,309,870	23,641,250	23,191,009	24,880,439	23,320,178	(1,560,261)	-6.3%
Shared Services	171,173	-	-	-	-	-	-%
Travel	91,151	123,626	129,660	128,380	124,720	(3,660)	-2.9%
Memberships, Contributions & Sponsorships	16,424	20,357	17,449	20,772	22,597	1,825	8.8%
Maintenance & Alterations	4,724,086	4,655,737	4,409,689	4,417,770	5,034,695	616,925	14.0%
Interest	4,250,075	4,154,325	3,922,381	3,697,167	3,453,982	(243,185)	-6.6%
Depreciation	5,008,140	5,243,267	5,660,872	6,255,906	6,096,604	(159,302)	-2.5%
Other Expenses & Transfers	9,470,898	10,523,963	10,381,614	10,653,524	11,973,865	1,320,341	12.4%
<b>Total Operating Expenses &amp; Transfers</b>	<b>73,502,924</b>	<b>74,967,624</b>	<b>75,035,116</b>	<b>78,740,192</b>	<b>80,252,648</b>	<b>1,512,456</b>	<b>1.9%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 3,466,633</b>	<b>\$ 4,023,412</b>	<b>\$ 4,376,201</b>	<b>\$ 2,908,387</b>	<b>\$ 2,286,157</b>	<b>\$ (622,230)</b>	<b>-21.4%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ 3,466,633	\$ 4,023,412	\$ 4,376,201	\$ 2,908,387	\$ 2,286,157	\$ (622,230)	-21.4%
Add Back Depreciation	5,008,140	5,243,267	5,660,872	6,255,906	6,096,604	(159,302)	-2.5%
Less Capital Expenditures	(1,069,782)	(1,391,717)	(2,010,486)	(2,284,887)	(1,652,194)	632,693	-27.7%
Less Capital Reserve Funding	(1,996,045)	(1,538,075)	(1,504,056)	(1,387,413)	(1,157,051)	230,362	-16.6%
Less Debt Service Principal	(4,960,134)	(4,955,928)	(5,162,411)	(5,429,046)	(5,795,428)	(366,382)	6.7%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>448,811</b>	<b>1,380,960</b>	<b>1,360,120</b>	<b>62,947</b>	<b>(221,912)</b>	<b>(284,859)</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	247,961	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>696,773</b>	<b>1,380,960</b>	<b>1,360,120</b>	<b>62,947</b>	<b>(221,912)</b>	<b>(284,859)</b>	
Other Strategic Transfers from/(to) Reserves	(6,046)	20,560	-	86,929	209,672	122,743	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 690,727</b>	<b>\$ 1,401,520</b>	<b>\$ 1,360,120</b>	<b>\$ 149,876</b>	<b>\$ (12,240)</b>	<b>\$ (162,116)</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE SYSTEM  
FY20 Proposed Budget  
E&G and AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 271,189,290	\$ 281,150,344	\$ 300,257,675	\$ 315,404,329	\$ 332,346,641	\$ 16,942,312	5.4%
Dining & Residence Revenue	60,935,598	62,221,852	63,842,454	65,474,989	68,153,741	2,678,752	4.1%
Tuition Waivers/Scholarships	(65,382,770)	(70,291,394)	(83,331,797)	(86,623,188)	(93,220,787)	(6,597,599)	7.6%
Net Student Charges Revenue	266,742,118	273,080,802	280,768,332	294,256,130	307,279,595	13,023,465	4.4%
State Appropriation	179,159,600	189,670,534	188,920,534	188,920,534	198,159,700	9,239,166	4.9%
Indirect Cost Recovery	11,544,913	12,355,375	12,277,559	12,669,319	13,299,319	630,000	5.0%
Investment Income/Gifts	2,742,771	10,475,233	7,005,550	5,464,275	4,428,767	(1,035,508)	-19.0%
Sales/Services/Auxiliary	42,173,734	41,528,952	40,784,528	39,643,281	38,343,410	(1,299,871)	-3.3%
<b>Total Revenue</b>	<b>502,363,135</b>	<b>527,110,906</b>	<b>529,756,502</b>	<b>540,953,539</b>	<b>561,510,791</b>	<b>20,557,252</b>	<b>3.8%</b>
<b>Expenses</b>							
Personnel	327,358,832	334,642,169	346,096,073	364,915,392	378,360,953	13,445,561	3.7%
Fuel & Electricity	19,219,042	19,093,804	19,235,457	21,534,778	22,366,679	831,901	3.9%
Supplies & Services	51,255,532	54,796,317	56,142,206	55,902,046	55,375,097	(526,949)	-0.9%
Shared Services	(266,361)	(59,908)	(29,905)	(46,770)	(19,000)	27,770	-59.4%
Travel	6,330,626	7,108,916	6,963,015	6,483,596	6,534,342	50,746	0.8%
Memberships, Contributions & Sponsorships	1,447,411	1,433,453	1,328,987	1,568,744	1,541,230	(27,514)	-1.8%
Maintenance & Alterations	17,569,790	17,070,994	17,291,778	16,087,109	17,105,946	1,018,837	6.3%
Interest	6,293,259	6,224,088	5,682,725	5,409,989	5,008,846	(401,143)	-7.4%
Depreciation	33,327,154	34,216,720	37,788,941	37,043,127	38,444,159	1,401,032	3.8%
Other Expenses & Transfers	39,361,803	40,859,322	40,898,707	43,174,710	48,021,873	4,847,163	11.2%
Pooled Costs - Benefits	30,114	666,425	(5,806,607)	-	-	-	-%
Pooled Costs - Insurance	(179,036)	(552,367)	(508,697)	-	-	-	-%
<b>Total Operating Expenses &amp; Transfers</b>	<b>501,748,167</b>	<b>515,499,932</b>	<b>525,082,679</b>	<b>552,072,721</b>	<b>572,740,125</b>	<b>20,667,404</b>	<b>3.7%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 614,967</b>	<b>\$ 11,610,974</b>	<b>\$ 4,673,823</b>	<b>\$ (11,119,182)</b>	<b>\$ (11,229,334)</b>	<b>\$ (110,152)</b>	<b>1.0%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ 614,967	\$ 11,610,974	\$ 4,673,823	\$ (11,119,182)	\$ (11,229,334)	\$ (110,152)	1.0%
Add Back Depreciation	33,327,154	34,216,720	37,788,941	37,043,127	38,444,159	1,401,032	3.8%
Less Capital Expenditures	(16,184,729)	(13,903,490)	(10,478,556)	(11,996,541)	(11,055,997)	940,544	-7.8%
Less Capital Reserve Funding	(4,701,913)	(4,875,804)	(6,521,373)	(5,795,474)	(4,535,191)	1,260,283	-21.7%
Less Debt Service Principal	(8,951,316)	(9,864,618)	(10,136,867)	(9,383,233)	(9,847,657)	(464,424)	4.9%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>4,104,163</b>	<b>17,183,782</b>	<b>15,325,968</b>	<b>(1,251,303)</b>	<b>1,775,980</b>	<b>3,027,283</b>	
Transfer from/(to) Administrative Savings Rsrv	(3,702,250)	(2,792,912)	(2,558,792)	(3,301,740)	(5,002,025)	(1,700,285)	
Transfer from/(to) Budget Stabilization	4,002,903	300,000	(1,724,680)	500,000	1,000,000	500,000	
<b>Net Change Subtotal</b>	<b>4,404,817</b>	<b>14,690,871</b>	<b>11,042,496</b>	<b>(4,053,043)</b>	<b>(2,226,045)</b>	<b>1,826,998</b>	
Other Strategic Transfers from/(to) Reserves	5,019,933	(5,468,041)	(5,400,949)	4,169,892	2,332,013	(1,837,879)	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 9,424,750</b>	<b>\$ 9,222,829</b>	<b>\$ 5,641,546</b>	<b>\$ 116,849</b>	<b>\$ 105,968</b>	<b>\$ (10,881)</b>	



Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE FY20 Proposed Budget E&G							
	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 141,742,698	\$ 151,251,577	\$ 164,689,431	\$ 172,126,005	\$ 183,354,836	\$ 11,228,831	6.5%
Dining & Residence Revenue	-	-	-	-	-	-	-%
Tuition Waivers/Scholarships	(41,686,566)	(43,672,295)	(51,600,182)	(54,516,538)	(60,045,276)	(5,528,738)	10.1%
Net Student Charges Revenue	100,056,132	107,579,282	113,089,249	117,609,467	123,309,560	5,700,093	4.8%
State Appropriation	77,520,337	82,897,718	83,854,217	83,592,496	84,071,731	479,235	0.6%
Indirect Cost Recovery	7,383,843	8,092,127	8,185,826	8,371,276	8,971,276	600,000	7.2%
Investment Income/Gifts	199,724	946,066	934,075	919,938	899,996	(19,942)	-2.2%
Sales/Services/Auxiliary	16,049,423	16,266,646	16,552,212	16,025,902	16,180,252	154,350	1.0%
<b>Total Revenue</b>	<b>201,209,459</b>	<b>215,781,838</b>	<b>222,615,579</b>	<b>226,519,079</b>	<b>233,432,815</b>	<b>6,913,736</b>	<b>3.1%</b>
<b>Expenses</b>							
Personnel	131,125,805	132,436,501	137,108,121	144,843,481	150,090,693	5,247,212	3.6%
Fuel & Electricity	8,553,516	8,666,869	8,316,413	10,139,804	10,380,876	241,072	2.4%
Supplies & Services	12,897,120	15,830,653	17,513,519	16,375,080	16,249,144	(125,936)	-0.8%
Shared Services	11,197,526	17,215,453	18,136,216	18,888,449	19,772,773	884,324	4.7%
Travel	3,018,676	3,439,464	3,212,449	2,807,728	2,861,147	53,419	1.9%
Memberships, Contributions & Sponsorships	404,708	313,451	363,537	421,099	426,947	5,848	1.4%
Maintenance & Alterations	4,816,146	4,771,042	5,599,137	4,542,256	4,861,237	318,981	7.0%
Interest	728,266	716,741	590,188	587,460	549,222	(38,238)	-6.5%
Depreciation	13,525,863	13,637,811	15,522,305	13,788,287	15,946,215	2,157,928	15.7%
Other Expenses & Transfers	19,107,023	22,273,887	21,837,961	21,647,741	21,287,781	(359,960)	-1.7%
<b>Total Operating Expenses &amp; Transfers</b>	<b>205,374,649</b>	<b>219,301,871</b>	<b>228,199,845</b>	<b>234,041,385</b>	<b>242,426,035</b>	<b>8,384,650</b>	<b>3.6%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (4,165,190)</b>	<b>\$ (3,520,033)</b>	<b>\$ (5,584,266)</b>	<b>\$ (7,522,306)</b>	<b>\$ (8,993,220)</b>	<b>\$ (1,470,914)</b>	<b>19.6%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ (4,165,190)	\$ (3,520,033)	\$ (5,584,266)	\$ (7,522,306)	\$ (8,993,220)	\$ (1,470,914)	19.6%
Add Back Depreciation	13,525,863	13,637,811	15,522,305	13,788,287	15,946,215	2,157,928	15.7%
Less Capital Expenditures	(5,931,012)	(5,834,413)	(5,061,787)	(5,186,064)	(5,691,193)	(505,129)	9.7%
Less Capital Reserve Funding	(1,200,000)	(200,000)	(1,950,000)	-	-	-	-%
Less Debt Service Principal	(1,346,060)	(1,352,002)	(1,451,051)	(1,079,917)	(1,261,802)	(181,885)	16.8%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>883,601</b>	<b>2,731,364</b>	<b>1,475,201</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>883,601</b>	<b>2,731,364</b>	<b>1,475,201</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Other Strategic Transfers from/(to) Reserves	240,000	228,909	300,251	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 1,123,601</b>	<b>\$ 2,960,273</b>	<b>\$ 1,775,452</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE  
FY20 Proposed Budget  
AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-%
Dining & Residence Revenue	36,783,057	37,644,882	39,278,604	39,188,740	40,459,908	1,271,168	3.2%
Tuition Waivers/Scholarships	(1,066,854)	(1,080,721)	(1,359,070)	(1,212,967)	(1,297,114)	(84,147)	6.9%
Net Student Charges Revenue	35,716,203	36,564,162	37,919,534	37,975,773	39,162,794	1,187,021	3.1%
State Appropriation	-	-	-	-	-	-	-%
Indirect Cost Recovery	-	-	-	-	-	-	-%
Investment Income/Gifts	-	-	-	-	-	-	-%
Sales/Services/Auxiliary	12,868,480	13,373,867	12,897,509	13,204,381	13,222,014	17,633	0.1%
<b>Total Revenue</b>	<b>48,584,683</b>	<b>49,938,029</b>	<b>50,817,042</b>	<b>51,180,154</b>	<b>52,384,808</b>	<b>1,204,654</b>	<b>2.4%</b>
<b>Expenses</b>							
Personnel	15,220,423	16,223,991	16,814,322	17,581,341	18,661,888	1,080,547	6.1%
Fuel & Electricity	3,372,228	3,507,634	3,752,586	3,731,834	3,882,185	150,351	4.0%
Supplies & Services	12,817,481	12,100,281	11,756,760	13,204,351	12,359,239	(845,112)	-6.4%
Shared Services	-	-	-	-	-	-	-%
Travel	56,066	81,571	78,265	102,455	97,995	(4,460)	-4.4%
Memberships, Contributions & Sponsorships	9,641	15,264	11,911	12,061	15,161	3,100	25.7%
Maintenance & Alterations	2,924,209	3,116,135	3,244,677	3,225,576	3,633,383	407,807	12.6%
Interest	2,168,975	2,113,172	1,993,097	1,876,652	1,757,274	(119,378)	-6.4%
Depreciation	3,212,192	3,361,487	3,476,156	3,999,166	3,657,981	(341,185)	-8.5%
Other Expenses & Transfers	5,802,460	6,327,126	6,344,470	5,495,924	6,769,280	1,273,356	23.2%
<b>Total Operating Expenses &amp; Transfers</b>	<b>45,583,675</b>	<b>46,846,661</b>	<b>47,472,245</b>	<b>49,229,360</b>	<b>50,834,386</b>	<b>1,605,026</b>	<b>3.3%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 3,001,008</b>	<b>\$ 3,091,367</b>	<b>\$ 3,344,797</b>	<b>\$ 1,950,794</b>	<b>\$ 1,550,422</b>	<b>\$ (400,372)</b>	<b>-20.5%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ 3,001,008	\$ 3,091,367	\$ 3,344,797	\$ 1,950,794	\$ 1,550,422	\$ (400,372)	-20.5%
Add Back Depreciation	3,212,192	3,361,487	3,476,156	3,999,166	3,657,981	(341,185)	-8.5%
Less Capital Expenditures	(871,740)	(765,867)	(1,221,759)	(1,978,747)	(1,282,700)	696,047	-35.2%
Less Capital Reserve Funding	(1,975,000)	(1,538,075)	(1,504,056)	(1,368,313)	(1,137,951)	230,362	-16.8%
Less Debt Service Principal	(2,473,400)	(2,410,000)	(2,495,700)	(2,602,900)	(2,787,752)	(184,852)	7.1%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>893,060</b>	<b>1,738,913</b>	<b>1,599,439</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>893,060</b>	<b>1,738,913</b>	<b>1,599,439</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Other Strategic Transfers from/(to) Reserves	-	26,606	-	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 893,060</b>	<b>\$ 1,765,519</b>	<b>\$ 1,599,439</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE  
FY20 Proposed Budget  
E&G and AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 141,742,698	\$ 151,251,577	\$ 164,689,431	\$ 172,126,005	\$ 183,354,836	\$ 11,228,831	6.5%
Dining & Residence Revenue	36,783,057	37,644,882	39,278,604	39,188,740	40,459,908	1,271,168	3.2%
Tuition Waivers/Scholarships	(42,753,420)	(44,753,016)	(52,959,252)	(55,729,505)	(61,342,390)	(5,612,885)	10.1%
Net Student Charges Revenue	135,772,335	144,143,443	151,008,783	155,585,240	162,472,354	6,887,114	4.4%
State Appropriation	77,520,337	82,897,718	83,854,217	83,592,496	84,071,731	479,235	0.6%
Indirect Cost Recovery	7,383,843	8,092,127	8,185,826	8,371,276	8,971,276	600,000	7.2%
Investment Income/Gifts	199,724	946,066	934,075	919,938	899,996	(19,942)	-2.2%
Sales/Services/Auxiliary	28,917,903	29,640,513	29,449,720	29,230,283	29,402,266	171,983	0.6%
<b>Total Revenue</b>	<b>249,794,142</b>	<b>265,719,867</b>	<b>273,432,622</b>	<b>277,699,233</b>	<b>285,817,623</b>	<b>8,118,390</b>	<b>2.9%</b>
<b>Expenses</b>							
Personnel	146,346,228	148,660,492	153,922,443	162,424,822	168,752,581	6,327,759	3.9%
Fuel & Electricity	11,925,744	12,174,503	12,068,999	13,871,638	14,263,061	391,423	2.8%
Supplies & Services	25,714,600	27,930,934	29,270,279	29,579,431	28,608,383	(971,048)	-3.3%
Shared Services	11,197,526	17,215,453	18,136,216	18,888,449	19,772,773	884,324	4.7%
Travel	3,074,742	3,521,035	3,290,714	2,910,183	2,959,142	48,959	1.7%
Memberships, Contributions & Sponsorships	414,349	328,715	375,448	433,160	442,108	8,948	2.1%
Maintenance & Alterations	7,740,356	7,887,177	8,843,814	7,767,832	8,494,620	726,788	9.4%
Interest	2,897,241	2,829,913	2,583,286	2,464,112	2,306,496	(157,616)	-6.4%
Depreciation	16,738,055	16,999,298	18,998,461	17,787,453	19,604,196	1,816,743	10.2%
Other Expenses & Transfers	24,909,483	28,601,013	28,182,431	27,143,665	28,057,061	913,396	3.4%
<b>Total Operating Expenses &amp; Transfers</b>	<b>250,958,324</b>	<b>266,148,533</b>	<b>275,672,090</b>	<b>283,270,745</b>	<b>293,260,421</b>	<b>9,989,676</b>	<b>3.5%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (1,164,181)</b>	<b>\$ (428,666)</b>	<b>\$ (2,239,468)</b>	<b>\$ (5,571,512)</b>	<b>\$ (7,442,798)</b>	<b>\$ (1,871,286)</b>	<b>33.6%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ (1,164,181)	\$ (428,666)	\$ (2,239,468)	\$ (5,571,512)	\$ (7,442,798)	\$ (1,871,286)	33.6%
Add Back Depreciation	16,738,055	16,999,298	18,998,461	17,787,453	19,604,196	1,816,743	10.2%
Less Capital Expenditures	(6,802,752)	(6,600,280)	(6,283,546)	(7,164,811)	(6,973,893)	190,918	-2.7%
Less Capital Reserve Funding	(3,175,000)	(1,738,075)	(3,454,056)	(1,368,313)	(1,137,951)	230,362	-16.8%
Less Debt Service Principal	(3,819,460)	(3,762,002)	(3,946,751)	(3,682,817)	(4,049,554)	(366,737)	10.0%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>1,776,661</b>	<b>4,470,276</b>	<b>3,074,640</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>1,776,661</b>	<b>4,470,276</b>	<b>3,074,640</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Other Strategic Transfers from/(to) Reserves	240,000	255,516	300,251	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 2,016,661</b>	<b>\$ 4,725,792</b>	<b>\$ 3,374,891</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE AT MACHIAS  
FY20 Proposed Budget  
E&G

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 4,668,510	\$ 4,744,825	\$ 4,420,317	\$ 4,621,822	\$ 4,102,676	\$ (519,146)	-11.2%
Dining & Residence Revenue	-	1,368	1,614	-	-	-	-%
Tuition Waivers/Scholarships	(1,454,003)	(1,404,221)	(1,241,881)	(1,168,193)	(1,168,193)	-	0.0%
Net Student Charges Revenue	3,214,507	3,341,972	3,180,050	3,453,629	2,934,483	(519,146)	-15.0%
State Appropriation	4,291,396	4,482,351	5,252,559	5,205,449	5,366,231	160,782	3.1%
Indirect Cost Recovery	92,657	60,677	85,274	60,000	60,000	-	0.0%
Investment Income/Gifts	-	-	-	-	-	-	-%
Sales/Services/Auxiliary	1,357,099	297,184	300,891	298,667	284,597	(14,070)	-4.7%
<b>Total Revenue</b>	<b>8,955,659</b>	<b>8,182,184</b>	<b>8,818,775</b>	<b>9,017,745</b>	<b>8,645,311</b>	<b>(372,434)</b>	<b>-4.1%</b>
<b>Expenses</b>							
Personnel	5,732,440	5,674,162	5,413,918	5,660,015	5,707,184	47,169	0.8%
Fuel & Electricity	326,544	271,755	288,057	364,200	373,200	9,000	2.5%
Supplies & Services	602,868	629,192	551,860	629,729	647,175	17,446	2.8%
Shared Services	951,856	1,211,319	1,191,534	1,250,590	1,261,736	11,146	0.9%
Travel	196,164	157,718	235,325	245,642	253,008	7,366	3.0%
Memberships, Contributions & Sponsorships	41,257	28,397	30,509	41,360	28,975	(12,385)	-29.9%
Maintenance & Alterations	148,153	97,877	78,023	142,804	152,632	9,828	6.9%
Interest	40,450	70,661	64,325	60,186	55,357	(4,829)	-8.0%
Depreciation	423,640	476,513	505,919	493,173	490,258	(2,915)	-0.6%
Other Expenses & Transfers	1,382,720	375,542	385,071	511,047	533,496	22,449	4.4%
<b>Total Operating Expenses &amp; Transfers</b>	<b>9,846,092</b>	<b>8,993,137</b>	<b>8,744,541</b>	<b>9,398,746</b>	<b>9,503,021</b>	<b>104,275</b>	<b>1.1%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (890,433)</b>	<b>\$ (810,954)</b>	<b>\$ 74,234</b>	<b>\$ (381,001)</b>	<b>\$ (857,710)</b>	<b>\$ (476,709)</b>	<b>125.1%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ (890,433)	\$ (810,954)	\$ 74,234	\$ (381,001)	\$ (857,710)	\$ (476,709)	125.1%
Add Back Depreciation	423,640	476,513	505,919	493,173	490,258	(2,915)	-0.6%
Less Capital Expenditures	(33,159)	(11,744)	(231)	(6,500)	(11,408)	(4,908)	75.5%
Less Capital Reserve Funding	(226,397)	(789,870)	-	-	-	-	-%
Less Debt Service Principal	(58,105)	(90,099)	(107,558)	(105,672)	(115,417)	(9,745)	9.2%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>(784,453)</b>	<b>(1,226,154)</b>	<b>472,364</b>	<b>-</b>	<b>(494,277)</b>	<b>(494,277)</b>	
Transfer from/(to) Administrative Savings Rsrv	-	1,000,000	-	-	-	-	
Transfer from/(to) Budget Stabilization	729,942	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>(54,511)</b>	<b>(226,154)</b>	<b>472,364</b>	<b>-</b>	<b>(494,277)</b>	<b>(494,277)</b>	
Other Strategic Transfers from/(to) Reserves	-	6,332	196	-	494,277	494,277	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ (54,511)</b>	<b>\$ (219,822)</b>	<b>\$ 472,560</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE AT MACHIAS  
FY20 Proposed Budget  
AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-%
Dining & Residence Revenue	1,807,664	1,902,246	1,532,605	1,718,766	1,623,388	(95,378)	-5.5%
Tuition Waivers/Scholarships	(47,586)	(74,624)	(69,024)	(62,440)	(45,250)	17,190	-27.5%
Net Student Charges Revenue	1,760,078	1,827,622	1,463,581	1,656,326	1,578,138	(78,188)	-4.7%
State Appropriation	-	-	-	-	-	-	-%
Indirect Cost Recovery	-	-	-	-	-	-	-%
Investment Income/Gifts	-	-	-	-	-	-	-%
Sales/Services/Auxiliary	69,890	91,488	74,151	47,500	49,315	1,815	3.8%
<b>Total Revenue</b>	<b>1,829,968</b>	<b>1,919,110</b>	<b>1,537,732</b>	<b>1,703,826</b>	<b>1,627,453</b>	<b>(76,373)</b>	<b>-4.5%</b>
<b>Expenses</b>							
Personnel	240,021	216,826	230,166	243,893	250,402	6,509	2.7%
Fuel & Electricity	137,521	199,879	212,663	203,656	207,580	3,924	1.9%
Supplies & Services	934,923	805,064	722,374	767,077	735,405	(31,672)	-4.1%
Shared Services	-	-	-	-	-	-	-%
Travel	1,200	3,761	2,111	700	500	(200)	-28.6%
Memberships, Contributions & Sponsorships	-	-	60	100	100	-	0.0%
Maintenance & Alterations	75,706	52,549	67,770	98,475	68,450	(30,025)	-30.5%
Interest	110,472	105,041	96,883	92,975	86,705	(6,270)	-6.7%
Depreciation	204,550	209,031	232,410	255,919	241,339	(14,580)	-5.7%
Other Expenses & Transfers	85,174	94,286	69,886	79,877	59,727	(20,150)	-25.2%
<b>Total Operating Expenses &amp; Transfers</b>	<b>1,789,567</b>	<b>1,686,437</b>	<b>1,634,322</b>	<b>1,742,672</b>	<b>1,650,208</b>	<b>(92,464)</b>	<b>-5.3%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 40,401</b>	<b>\$ 232,673</b>	<b>\$ (96,589)</b>	<b>\$ (38,846)</b>	<b>\$ (22,755)</b>	<b>\$ 16,091</b>	<b>-41.4%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ 40,401	\$ 232,673	\$ (96,589)	\$ (38,846)	\$ (22,755)	\$ 16,091	-41.4%
Add Back Depreciation	204,550	209,031	232,410	255,919	241,339	(14,580)	-5.7%
Less Capital Expenditures	-	(42,639)	(40,101)	-	-	-	-%
Less Capital Reserve Funding	(21,045)	-	-	-	-	-	-%
Less Debt Service Principal	(169,395)	(179,363)	(197,067)	(217,073)	(218,584)	(1,511)	0.7%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>54,511</b>	<b>219,702</b>	<b>(101,348)</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>54,511</b>	<b>219,702</b>	<b>(101,348)</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Other Strategic Transfers from/(to) Reserves	-	-	-	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 54,511</b>	<b>\$ 219,702</b>	<b>\$ (101,348)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE AT MACHIAS  
FY20 Proposed Budget  
E&G and AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 4,668,510	\$ 4,744,825	\$ 4,420,317	\$ 4,621,822	\$ 4,102,676	\$ (519,146)	-11.2%
Dining & Residence Revenue	1,807,664	1,903,614	1,534,219	1,718,766	1,623,388	(95,378)	-5.5%
Tuition Waivers/Scholarships	(1,501,589)	(1,478,844)	(1,310,905)	(1,230,633)	(1,213,443)	17,190	-1.4%
Net Student Charges Revenue	4,974,585	5,169,594	4,643,631	5,109,955	4,512,621	(597,334)	-11.7%
State Appropriation	4,291,396	4,482,351	5,252,559	5,205,449	5,366,231	160,782	3.1%
Indirect Cost Recovery	92,657	60,677	85,274	60,000	60,000	-	0.0%
Investment Income/Gifts	-	-	-	-	-	-	-%
Sales/Services/Auxiliary	1,426,989	388,671	375,042	346,167	333,912	(12,255)	-3.5%
<b>Total Revenue</b>	<b>10,785,627</b>	<b>10,101,293</b>	<b>10,356,507</b>	<b>10,721,571</b>	<b>10,272,764</b>	<b>(448,807)</b>	<b>-4.2%</b>
<b>Expenses</b>							
Personnel	5,972,461	5,890,988	5,644,084	5,903,908	5,957,586	53,678	0.9%
Fuel & Electricity	464,065	471,634	500,720	567,856	580,780	12,924	2.3%
Supplies & Services	1,537,791	1,434,256	1,274,233	1,396,806	1,382,580	(14,226)	-1.0%
Shared Services	951,856	1,211,319	1,191,534	1,250,590	1,261,736	11,146	0.9%
Travel	197,363	161,480	237,435	246,342	253,508	7,166	2.9%
Memberships, Contributions & Sponsorships	41,257	28,397	30,569	41,460	29,075	(12,385)	-29.9%
Maintenance & Alterations	223,859	150,426	145,793	241,279	221,082	(20,197)	-8.4%
Interest	150,922	175,702	161,208	153,161	142,062	(11,099)	-7.2%
Depreciation	628,190	685,544	738,329	749,092	731,597	(17,495)	-2.3%
Other Expenses & Transfers	1,467,894	469,828	454,956	590,924	593,223	2,299	0.4%
<b>Total Operating Expenses &amp; Transfers</b>	<b>11,635,658</b>	<b>10,679,574</b>	<b>10,378,863</b>	<b>11,141,418</b>	<b>11,153,229</b>	<b>11,811</b>	<b>0.1%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (850,032)</b>	<b>\$ (578,281)</b>	<b>\$ (22,356)</b>	<b>\$ (419,847)</b>	<b>\$ (880,465)</b>	<b>\$ (460,618)</b>	<b>109.7%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ (850,032)	\$ (578,281)	\$ (22,356)	\$ (419,847)	\$ (880,465)	\$ (460,618)	109.7%
Add Back Depreciation	628,190	685,544	738,329	749,092	731,597	(17,495)	-2.3%
Less Capital Expenditures	(33,159)	(54,383)	(40,332)	(6,500)	(11,408)	(4,908)	75.5%
Less Capital Reserve Funding	(247,442)	(789,870)	-	-	-	-	-%
Less Debt Service Principal	(227,500)	(269,462)	(304,625)	(322,745)	(334,001)	(11,256)	3.5%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>(729,942)</b>	<b>(1,006,452)</b>	<b>371,016</b>	<b>-</b>	<b>(494,277)</b>	<b>(494,277)</b>	
Transfer from/(to) Administrative Savings Rsrv	-	1,000,000	-	-	-	-	
Transfer from/(to) Budget Stabilization	729,942	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>-</b>	<b>(6,452)</b>	<b>371,016</b>	<b>-</b>	<b>(494,277)</b>	<b>(494,277)</b>	
Other Strategic Transfers from/(to) Reserves	-	6,332	196	-	494,277	494,277	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ -</b>	<b>\$ (120)</b>	<b>\$ 371,212</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE AT AUGUSTA  
FY20 Proposed Budget  
E&G

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 23,098,073	\$ 20,924,255	\$ 20,370,378	\$ 21,317,704	\$ 22,741,777	\$ 1,424,073	6.7%
Dining & Residence Revenue	-	-	-	-	-	-	-%
Tuition Waivers/Scholarships	(2,868,345)	(2,691,731)	(3,431,893)	(3,183,657)	(3,658,646)	(474,989)	14.9%
Net Student Charges Revenue	20,229,729	18,232,524	16,938,485	18,134,047	19,083,131	949,084	5.2%
State Appropriation	15,417,697	16,803,125	17,193,899	17,428,401	18,366,360	937,959	5.4%
Indirect Cost Recovery	172,342	159,416	156,968	160,885	160,885	-	0.0%
Investment Income/Gifts	-	-	-	-	-	-	-%
Sales/Services/Auxiliary	470,572	549,466	476,336	386,681	353,628	(33,053)	-8.5%
<b>Total Revenue</b>	<b>36,290,340</b>	<b>35,744,531</b>	<b>34,765,688</b>	<b>36,110,014</b>	<b>37,964,004</b>	<b>1,853,990</b>	<b>5.1%</b>
<b>Expenses</b>							
Personnel	24,603,321	24,600,452	24,726,796	26,661,634	27,079,077	417,443	1.6%
Fuel & Electricity	714,751	615,403	694,926	731,723	717,696	(14,027)	-1.9%
Supplies & Services	1,583,782	1,788,560	1,602,182	1,760,629	1,695,125	(65,504)	-3.7%
Shared Services	3,783,841	4,476,201	4,608,719	4,871,738	4,911,831	40,093	0.8%
Travel	359,104	357,547	344,505	321,587	327,191	5,604	1.7%
Memberships, Contributions & Sponsorships	79,251	52,206	76,265	80,816	91,566	10,750	13.3%
Maintenance & Alterations	472,449	445,018	496,396	475,028	475,847	819	0.2%
Interest	49,320	42,550	34,540	30,221	27,392	(2,829)	-9.4%
Depreciation	1,477,405	1,555,419	1,703,223	1,730,680	1,700,928	(29,752)	-1.7%
Other Expenses & Transfers	2,073,697	2,151,204	2,031,111	2,780,022	2,739,757	(40,265)	-1.4%
<b>Total Operating Expenses &amp; Transfers</b>	<b>35,196,921</b>	<b>36,084,559</b>	<b>36,318,663</b>	<b>39,444,078</b>	<b>39,766,410</b>	<b>322,332</b>	<b>0.8%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 1,093,419</b>	<b>\$ (340,028)</b>	<b>\$ (1,552,974)</b>	<b>\$ (3,334,064)</b>	<b>\$ (1,802,406)</b>	<b>\$ 1,531,658</b>	<b>-45.9%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ 1,093,419	\$ (340,028)	\$ (1,552,974)	\$ (3,334,064)	\$ (1,802,406)	\$ 1,531,658	-45.9%
Add Back Depreciation	1,477,405	1,555,419	1,703,223	1,730,680	1,700,928	(29,752)	-1.7%
Less Capital Expenditures	(980,815)	(724,844)	(821,025)	(980,319)	(724,433)	255,886	-26.1%
Less Capital Reserve Funding	-	-	-	-	-	-	-%
Less Debt Service Principal	(216,674)	(278,035)	(286,330)	(328,376)	(377,153)	(48,777)	14.9%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>1,373,335</b>	<b>212,511</b>	<b>(957,105)</b>	<b>(2,912,079)</b>	<b>(1,203,064)</b>	<b>1,709,015</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>1,373,335</b>	<b>212,511</b>	<b>(957,105)</b>	<b>(2,912,079)</b>	<b>(1,203,064)</b>	<b>1,709,015</b>	
Other Strategic Transfers from/(to) Reserves	544,651	405,923	(12,902)	2,864,084	1,203,064	(1,661,020)	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 1,917,986</b>	<b>\$ 618,435</b>	<b>\$ (970,008)</b>	<b>\$ (47,995)</b>	<b>\$ -</b>	<b>\$ 47,995</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE AT AUGUSTA  
FY20 Proposed Budget  
AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-%
Dining & Residence Revenue	(156)	5,511	6,794	7,637	256,413	248,776	3257.5%
Tuition Waivers/Scholarships	-	-	-	-	-	-	-%
Net Student Charges Revenue	(156)	5,511	6,794	7,637	256,413	248,776	3257.5%
State Appropriation	-	-	-	-	-	-	-%
Indirect Cost Recovery	-	-	-	-	-	-	-%
Investment Income/Gifts	-	-	-	-	-	-	-%
Sales/Services/Auxiliary	1,248,386	1,160,982	1,040,118	1,086,000	1,119,000	33,000	3.0%
<b>Total Revenue</b>	<b>1,248,230</b>	<b>1,166,494</b>	<b>1,046,912</b>	<b>1,093,637</b>	<b>1,375,413</b>	<b>281,776</b>	<b>25.8%</b>
<b>Expenses</b>							
Personnel	283,751	277,243	281,370	283,552	377,750	94,198	33.2%
Fuel & Electricity	709	694	723	1,000	1,000	-	0.0%
Supplies & Services	876,398	826,060	728,808	750,450	785,108	34,658	4.6%
Shared Services	-	-	-	-	-	-	-%
Travel	147	26	-	450	450	-	0.0%
Memberships, Contributions & Sponsorships	820	885	685	900	700	(200)	-22.2%
Maintenance & Alterations	5,876	9,604	3,880	9,137	9,137	-	0.0%
Interest	2,665	2,284	1,882	1,468	1,141	(327)	-22.3%
Depreciation	16,682	15,986	17,335	17,662	16,769	(893)	-5.1%
Other Expenses & Transfers	110,491	112,607	108,810	122,705	398,615	275,910	224.9%
<b>Total Operating Expenses &amp; Transfers</b>	<b>1,297,538</b>	<b>1,245,388</b>	<b>1,143,493</b>	<b>1,187,324</b>	<b>1,590,670</b>	<b>403,346</b>	<b>34.0%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (49,308)</b>	<b>\$ (78,895)</b>	<b>\$ (96,580)</b>	<b>\$ (93,687)</b>	<b>\$ (215,257)</b>	<b>\$ (121,570)</b>	<b>129.8%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ (49,308)	\$ (78,895)	\$ (96,580)	\$ (93,687)	\$ (215,257)	\$ (121,570)	129.8%
Add Back Depreciation	16,682	15,986	17,335	17,662	16,769	(893)	-5.1%
Less Capital Expenditures	-	(22,399)	(5,000)	-	-	-	-%
Less Capital Reserve Funding	-	-	-	-	-	-	-%
Less Debt Service Principal	(9,506)	(10,066)	(10,345)	(10,904)	(11,184)	(280)	2.6%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>(42,132)</b>	<b>(95,373)</b>	<b>(94,591)</b>	<b>(86,929)</b>	<b>(209,672)</b>	<b>(122,743)</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>(42,132)</b>	<b>(95,373)</b>	<b>(94,591)</b>	<b>(86,929)</b>	<b>(209,672)</b>	<b>(122,743)</b>	
Other Strategic Transfers from/(to) Reserves	-	-	-	86,929	209,672	122,743	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ (42,132)</b>	<b>\$ (95,373)</b>	<b>\$ (94,591)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	



Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE AT AUGUSTA  
FY20 Proposed Budget  
E&G and AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 23,098,073	\$ 20,924,255	\$ 20,370,378	\$ 21,317,704	\$ 22,741,777	\$ 1,424,073	6.7%
Dining & Residence Revenue	(156)	5,511	6,794	7,637	256,413	248,776	3257.5%
Tuition Waivers/Scholarships	(2,868,345)	(2,691,731)	(3,431,893)	(3,183,657)	(3,658,646)	(474,989)	14.9%
Net Student Charges Revenue	20,229,572	18,238,035	16,945,279	18,141,684	19,339,544	1,197,860	6.6%
State Appropriation	15,417,697	16,803,125	17,193,899	17,428,401	18,366,360	937,959	5.4%
Indirect Cost Recovery	172,342	159,416	156,968	160,885	160,885	-	0.0%
Investment Income/Gifts	-	-	-	-	-	-	-%
Sales/Services/Auxiliary	1,718,958	1,710,448	1,516,455	1,472,681	1,472,628	(53)	0.0%
<b>Total Revenue</b>	<b>37,538,570</b>	<b>36,911,025</b>	<b>35,812,601</b>	<b>37,203,651</b>	<b>39,339,417</b>	<b>2,135,766</b>	<b>5.7%</b>
<b>Expenses</b>							
Personnel	24,887,071	24,877,695	25,008,166	26,945,186	27,456,827	511,641	1.9%
Fuel & Electricity	715,459	616,097	695,649	732,723	718,696	(14,027)	-1.9%
Supplies & Services	2,460,180	2,614,619	2,330,990	2,511,079	2,480,233	(30,846)	-1.2%
Shared Services	3,783,841	4,476,201	4,608,719	4,871,738	4,911,831	40,093	0.8%
Travel	359,251	357,573	344,505	322,037	327,641	5,604	1.7%
Memberships, Contributions & Sponsorships	80,071	53,091	76,950	81,716	92,266	10,550	12.9%
Maintenance & Alterations	478,325	454,622	500,276	484,165	484,984	819	0.2%
Interest	51,985	44,834	36,422	31,689	28,533	(3,156)	-10.0%
Depreciation	1,494,088	1,571,405	1,720,558	1,748,342	1,717,697	(30,645)	-1.8%
Other Expenses & Transfers	2,184,188	2,263,811	2,139,921	2,902,727	3,138,372	235,645	8.1%
<b>Total Operating Expenses &amp; Transfers</b>	<b>36,494,459</b>	<b>37,329,948</b>	<b>37,462,155</b>	<b>40,631,402</b>	<b>41,357,080</b>	<b>725,678</b>	<b>1.8%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 1,044,111</b>	<b>\$ (418,923)</b>	<b>\$ (1,649,554)</b>	<b>\$ (3,427,751)</b>	<b>\$ (2,017,663)</b>	<b>\$ 1,410,088</b>	<b>-41.1%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ 1,044,111	\$ (418,923)	\$ (1,649,554)	\$ (3,427,751)	\$ (2,017,663)	\$ 1,410,088	-41.1%
Add Back Depreciation	1,494,088	1,571,405	1,720,558	1,748,342	1,717,697	(30,645)	-1.8%
Less Capital Expenditures	(980,815)	(747,243)	(826,025)	(980,319)	(724,433)	255,886	-26.1%
Less Capital Reserve Funding	-	-	-	-	-	-	-%
Less Debt Service Principal	(226,181)	(288,101)	(296,675)	(339,280)	(388,337)	(49,057)	14.5%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>1,331,203</b>	<b>117,138</b>	<b>(1,051,696)</b>	<b>(2,999,008)</b>	<b>(1,412,736)</b>	<b>1,586,272</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>1,331,203</b>	<b>117,138</b>	<b>(1,051,696)</b>	<b>(2,999,008)</b>	<b>(1,412,736)</b>	<b>1,586,272</b>	
Other Strategic Transfers from/(to) Reserves	544,651	405,923	(12,902)	2,951,013	1,412,736	(1,538,277)	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 1,875,854</b>	<b>\$ 523,061</b>	<b>\$ (1,064,598)</b>	<b>\$ (47,995)</b>	<b>\$ -</b>	<b>\$ 47,995</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE AT FARMINGTON  
FY20 Proposed Budget  
E&G

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 18,700,907	\$ 18,920,211	\$ 19,365,705	\$ 21,401,214	\$ 21,378,659	\$ (22,555)	-0.1%
Dining & Residence Revenue	-	-	-	-	-	-	-%
Tuition Waivers/Scholarships	(3,840,710)	(4,063,233)	(4,599,672)	(4,141,336)	(4,905,057)	(763,721)	18.4%
Net Student Charges Revenue	14,860,197	14,856,979	14,766,034	17,259,878	16,473,602	(786,276)	-4.6%
State Appropriation	11,345,379	12,253,931	12,296,865	12,380,248	12,978,593	598,345	4.8%
Indirect Cost Recovery	270,470	260,117	220,402	200,000	200,000	-	0.0%
Investment Income/Gifts	6,707	3,340	-	-	-	-	-%
Sales/Services/Auxiliary	1,050,272	1,028,611	1,013,835	700,310	763,310	63,000	9.0%
<b>Total Revenue</b>	<b>27,533,025</b>	<b>28,402,978</b>	<b>28,297,136</b>	<b>30,540,436</b>	<b>30,415,505</b>	<b>(124,931)</b>	<b>-0.4%</b>
<b>Expenses</b>							
Personnel	22,353,398	22,932,516	23,739,506	24,033,555	24,567,594	534,039	2.2%
Fuel & Electricity	769,810	693,341	659,140	689,470	776,326	86,856	12.6%
Supplies & Services	1,526,219	1,484,184	1,384,180	1,263,278	1,255,891	(7,387)	-0.6%
Shared Services	2,515,589	3,081,149	3,316,799	3,686,155	3,790,711	104,556	2.8%
Travel	554,095	766,832	596,438	521,330	524,330	3,000	0.6%
Memberships, Contributions & Sponsorships	91,105	91,914	92,599	94,059	94,059	-	0.0%
Maintenance & Alterations	240,765	208,231	113,453	50,981	50,981	-	0.0%
Interest	206,132	226,986	213,133	197,746	180,699	(17,047)	-8.6%
Depreciation	1,592,422	1,818,821	1,881,502	1,835,415	1,842,905	7,490	0.4%
Other Expenses & Transfers	(327,580)	(718,837)	(848,711)	(1,221,318)	(1,141,647)	79,671	-6.5%
<b>Total Operating Expenses &amp; Transfers</b>	<b>29,521,955</b>	<b>30,585,136</b>	<b>31,148,041</b>	<b>31,150,671</b>	<b>31,941,849</b>	<b>791,178</b>	<b>2.5%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (1,988,930)</b>	<b>\$ (2,182,159)</b>	<b>\$ (2,850,904)</b>	<b>\$ (610,235)</b>	<b>\$ (1,526,344)</b>	<b>\$ (916,109)</b>	<b>150.1%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ (1,988,930)	\$ (2,182,159)	\$ (2,850,904)	\$ (610,235)	\$ (1,526,344)	\$ (916,109)	150.1%
Add Back Depreciation	1,592,422	1,818,821	1,881,502	1,835,415	1,842,905	7,490	0.4%
Less Capital Expenditures	(17,153)	(55,514)	(30,893)	(884,239)	(424,030)	460,209	-52.0%
Less Capital Reserve Funding	-	(376,964)	-	-	-	-	-%
Less Debt Service Principal	(314,350)	(304,888)	(323,021)	(340,941)	(392,531)	(51,590)	15.1%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>(728,010)</b>	<b>(1,100,704)</b>	<b>(1,323,317)</b>	<b>-</b>	<b>(500,000)</b>	<b>(500,000)</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	500,000	500,000	
<b>Net Change Subtotal</b>	<b>(728,010)</b>	<b>(1,100,704)</b>	<b>(1,323,317)</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Other Strategic Transfers from/(to) Reserves	-	749,764	-	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ (728,010)</b>	<b>\$ (350,939)</b>	<b>\$ (1,323,317)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE AT FARMINGTON  
FY20 Proposed Budget  
AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-%
Dining & Residence Revenue	7,997,393	8,071,723	8,586,283	9,037,262	9,273,041	235,779	2.6%
Tuition Waivers/Scholarships	(399,290)	(406,057)	(463,922)	(343,237)	(296,415)	46,822	-13.6%
Net Student Charges Revenue	7,598,103	7,665,666	8,122,360	8,694,025	8,976,626	282,601	3.3%
State Appropriation	-	-	-	-	-	-	-%
Indirect Cost Recovery	-	-	-	-	-	-	-%
Investment Income/Gifts	-	-	-	-	-	-	-%
Sales/Services/Auxiliary	534,695	767,671	656,971	278,000	253,700	(24,300)	-8.7%
<b>Total Revenue</b>	<b>8,132,798</b>	<b>8,433,337</b>	<b>8,779,331</b>	<b>8,972,025</b>	<b>9,230,326</b>	<b>258,301</b>	<b>2.9%</b>
<b>Expenses</b>							
Personnel	1,810,272	1,859,151	1,823,973	1,557,651	1,748,897	191,246	12.3%
Fuel & Electricity	347,880	436,328	455,506	563,665	498,648	(65,017)	-11.5%
Supplies & Services	2,913,320	3,182,964	3,320,728	3,186,685	3,290,408	103,723	3.3%
Shared Services	53,874	-	-	-	-	-	-%
Travel	22,996	21,759	24,463	4,275	4,275	-	0.0%
Memberships, Contributions & Sponsorships	2,579	1,800	2,775	3,975	3,550	(425)	-10.7%
Maintenance & Alterations	190,861	109,375	150,951	47,457	47,407	(50)	-0.1%
Interest	469,335	474,577	445,091	421,967	390,147	(31,820)	-7.5%
Depreciation	460,253	524,441	633,192	588,187	703,478	115,291	19.6%
Other Expenses & Transfers	1,640,418	1,830,773	1,611,867	2,244,782	2,232,440	(12,342)	-0.5%
<b>Total Operating Expenses &amp; Transfers</b>	<b>7,911,788</b>	<b>8,441,170</b>	<b>8,468,548</b>	<b>8,618,644</b>	<b>8,919,250</b>	<b>300,606</b>	<b>3.5%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 221,009</b>	<b>\$ (7,832)</b>	<b>\$ 310,783</b>	<b>\$ 353,381</b>	<b>\$ 311,076</b>	<b>\$ (42,305)</b>	<b>-12.0%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ 221,009	\$ (7,832)	\$ 310,783	\$ 353,381	\$ 311,076	\$ (42,305)	-12.0%
Add Back Depreciation	460,253	524,441	633,192	588,187	703,478	115,291	19.6%
Less Capital Expenditures	(44,322)	(275,574)	(380,162)	(233,290)	(225,236)	8,054	-3.5%
Less Capital Reserve Funding	-	-	-	-	-	-	-%
Less Debt Service Principal	(601,700)	(606,100)	(638,566)	(708,278)	(789,318)	(81,040)	11.4%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>35,241</b>	<b>(365,065)</b>	<b>(74,753)</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>35,241</b>	<b>(365,065)</b>	<b>(74,753)</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Other Strategic Transfers from/(to) Reserves	-	-	-	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 35,241</b>	<b>\$ (365,065)</b>	<b>\$ (74,753)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE AT FARMINGTON  
FY20 Proposed Budget  
E&G and AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 18,700,907	\$ 18,920,211	\$ 19,365,705	\$ 21,401,214	\$ 21,378,659	\$ (22,555)	-0.1%
Dining & Residence Revenue	7,997,393	8,071,723	8,586,283	9,037,262	9,273,041	235,779	2.6%
Tuition Waivers/Scholarships	(4,240,000)	(4,469,289)	(5,063,594)	(4,484,573)	(5,201,472)	(716,899)	16.0%
Net Student Charges Revenue	22,458,299	22,522,645	22,888,394	25,953,903	25,450,228	(503,675)	-1.9%
State Appropriation	11,345,379	12,253,931	12,296,865	12,380,248	12,978,593	598,345	4.8%
Indirect Cost Recovery	270,470	260,117	220,402	200,000	200,000	-	0.0%
Investment Income/Gifts	6,707	3,340	-	-	-	-	-%
Sales/Services/Auxiliary	1,584,967	1,796,282	1,670,806	978,310	1,017,010	38,700	4.0%
<b>Total Revenue</b>	<b>35,665,823</b>	<b>36,836,315</b>	<b>37,076,467</b>	<b>39,512,461</b>	<b>39,645,831</b>	<b>133,370</b>	<b>0.3%</b>
<b>Expenses</b>							
Personnel	24,163,670	24,791,667	25,563,479	25,591,206	26,316,491	725,285	2.8%
Fuel & Electricity	1,117,690	1,129,669	1,114,647	1,253,135	1,274,974	21,839	1.7%
Supplies & Services	4,439,539	4,667,148	4,704,908	4,449,963	4,546,299	96,336	2.2%
Shared Services	2,569,463	3,081,149	3,316,799	3,686,155	3,790,711	104,556	2.8%
Travel	577,091	788,591	620,902	525,605	528,605	3,000	0.6%
Memberships, Contributions & Sponsorships	93,684	93,714	95,374	98,034	97,609	(425)	-0.4%
Maintenance & Alterations	431,626	317,606	264,405	98,438	98,388	(50)	-0.1%
Interest	675,467	701,563	658,224	619,713	570,846	(48,867)	-7.9%
Depreciation	2,052,676	2,343,262	2,514,694	2,423,602	2,546,383	122,781	5.1%
Other Expenses & Transfers	1,312,838	1,111,936	763,157	1,023,464	1,090,793	67,329	6.6%
<b>Total Operating Expenses &amp; Transfers</b>	<b>37,433,743</b>	<b>39,026,306</b>	<b>39,616,588</b>	<b>39,769,315</b>	<b>40,861,099</b>	<b>1,091,784</b>	<b>2.7%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (1,767,921)</b>	<b>\$ (2,189,991)</b>	<b>\$ (2,540,121)</b>	<b>\$ (256,854)</b>	<b>\$ (1,215,268)</b>	<b>\$ (958,414)</b>	<b>373.1%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ (1,767,921)	\$ (2,189,991)	\$ (2,540,121)	\$ (256,854)	\$ (1,215,268)	\$ (958,414)	373.1%
Add Back Depreciation	2,052,676	2,343,262	2,514,694	2,423,602	2,546,383	122,781	5.1%
Less Capital Expenditures	(61,475)	(331,088)	(411,055)	(1,117,529)	(649,266)	468,263	-41.9%
Less Capital Reserve Funding	-	(376,964)	-	-	-	-	-%
Less Debt Service Principal	(916,050)	(910,988)	(961,587)	(1,049,219)	(1,181,849)	(132,630)	12.6%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>(692,770)</b>	<b>(1,465,769)</b>	<b>(1,398,069)</b>	<b>-</b>	<b>(500,000)</b>	<b>(500,000)</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	500,000	500,000	
<b>Net Change Subtotal</b>	<b>(692,770)</b>	<b>(1,465,769)</b>	<b>(1,398,069)</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Other Strategic Transfers from/(to) Reserves	-	749,764	-	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ (692,770)</b>	<b>\$ (716,005)</b>	<b>\$ (1,398,069)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE AT FORT KENT  
FY20 Proposed Budget  
E&G

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 8,189,806	\$ 8,782,839	\$ 8,674,237	\$ 9,381,658	\$ 8,978,774	\$ (402,884)	-4.3%
Dining & Residence Revenue	-	-	-	-	-	-	-%
Tuition Waivers/Scholarships	(891,331)	(976,618)	(1,447,188)	(1,689,014)	(1,633,171)	55,843	-3.3%
Net Student Charges Revenue	7,298,475	7,806,221	7,227,049	7,692,644	7,345,603	(347,041)	-4.5%
State Appropriation	4,622,357	5,308,503	6,513,346	6,877,413	7,818,910	941,497	13.7%
Indirect Cost Recovery	37,167	49,376	43,369	32,500	37,500	5,000	15.4%
Investment Income/Gifts	-	-	-	-	-	-	-%
Sales/Services/Auxiliary	346,615	407,501	337,260	216,882	184,200	(32,682)	-15.1%
<b>Total Revenue</b>	<b>12,304,613</b>	<b>13,571,602</b>	<b>14,121,024</b>	<b>14,819,439</b>	<b>15,386,213</b>	<b>566,774</b>	<b>3.8%</b>
<b>Expenses</b>							
Personnel	8,619,559	8,896,826	9,200,527	9,737,528	9,912,911	175,383	1.8%
Fuel & Electricity	442,278	428,252	408,864	453,246	463,550	10,304	2.3%
Supplies & Services	773,137	640,315	594,458	559,101	661,947	102,846	18.4%
Shared Services	1,343,448	1,514,685	1,677,758	1,879,146	1,949,296	70,150	3.7%
Travel	305,882	298,363	343,488	401,750	398,100	(3,650)	-0.9%
Memberships, Contributions & Sponsorships	43,745	59,992	59,695	69,870	69,490	(380)	-0.5%
Maintenance & Alterations	198,051	201,312	184,222	247,850	258,341	10,491	4.2%
Interest	46,982	45,615	38,563	35,206	30,166	(5,040)	-14.3%
Depreciation	621,369	666,633	628,754	724,561	713,898	(10,663)	-1.5%
Other Expenses & Transfers	1,438,432	1,466,569	367,036	658,698	770,486	111,788	17.0%
<b>Total Operating Expenses &amp; Transfers</b>	<b>13,832,883</b>	<b>14,218,562</b>	<b>13,503,364</b>	<b>14,766,956</b>	<b>15,228,185</b>	<b>461,229</b>	<b>3.1%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (1,528,270)</b>	<b>\$ (646,960)</b>	<b>\$ 617,659</b>	<b>\$ 52,483</b>	<b>\$ 158,028</b>	<b>\$ 105,545</b>	<b>201.1%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ (1,528,270)	\$ (646,960)	\$ 617,659	\$ 52,483	\$ 158,028	\$ 105,545	201.1%
Add Back Depreciation	621,369	666,633	628,754	724,561	713,898	(10,663)	-1.5%
Less Capital Expenditures	(175,931)	(452,098)	(270,688)	(220,000)	(225,000)	(5,000)	2.3%
Less Capital Reserve Funding	-	(27,445)	-	-	-	-	-%
Less Debt Service Principal	(168,687)	(366,256)	(327,341)	(345,488)	(346,039)	(551)	0.2%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>(1,251,519)</b>	<b>(826,126)</b>	<b>648,385</b>	<b>211,556</b>	<b>300,887</b>	<b>89,331</b>	
Transfer from/(to) Administrative Savings Rsrv	-	1,000,000	-	-	-	-	
Transfer from/(to) Budget Stabilization	1,251,519	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>-</b>	<b>173,874</b>	<b>648,385</b>	<b>211,556</b>	<b>300,887</b>	<b>89,331</b>	
Other Strategic Transfers from/(to) Reserves	-	-	-	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ -</b>	<b>\$ 173,874</b>	<b>\$ 648,385</b>	<b>\$ 211,556</b>	<b>\$ 300,887</b>	<b>\$ 89,331</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE AT FORT KENT  
FY20 Proposed Budget  
AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-%
Dining & Residence Revenue	1,653,276	1,512,141	1,297,601	1,463,200	1,407,995	(55,205)	-3.8%
Tuition Waivers/Scholarships	(57,662)	(59,545)	(54,275)	(60,000)	(60,000)	-	0.0%
Net Student Charges Revenue	1,595,614	1,452,596	1,243,326	1,403,200	1,347,995	(55,205)	-3.9%
State Appropriation	-	-	-	-	-	-	-%
Indirect Cost Recovery	-	-	-	-	-	-	-%
Investment Income/Gifts	-	-	-	-	-	-	-%
Sales/Services/Auxiliary	122,330	127,520	132,830	106,900	103,900	(3,000)	-2.8%
<b>Total Revenue</b>	<b>1,717,944</b>	<b>1,580,115</b>	<b>1,376,156</b>	<b>1,510,100</b>	<b>1,451,895</b>	<b>(58,205)</b>	<b>-3.9%</b>
<b>Expenses</b>							
Personnel	290,992	282,821	283,997	290,086	334,166	44,080	15.2%
Fuel & Electricity	191,836	183,105	159,377	181,100	172,387	(8,713)	-4.8%
Supplies & Services	843,944	661,996	677,975	700,690	686,294	(14,396)	-2.1%
Shared Services	-	-	-	-	-	-	-%
Travel	5,282	5,503	4,433	3,500	3,000	(500)	-14.3%
Memberships, Contributions & Sponsorships	400	51	249	250	200	(50)	-20.0%
Maintenance & Alterations	79,599	93,673	78,605	56,770	46,600	(10,170)	-17.9%
Interest	231,002	228,183	215,139	207,200	196,700	(10,500)	-5.1%
Depreciation	234,651	215,847	218,773	216,543	232,531	15,988	7.4%
Other Expenses & Transfers	60,199	65,940	60,788	65,427	62,027	(3,400)	-5.2%
<b>Total Operating Expenses &amp; Transfers</b>	<b>1,937,906</b>	<b>1,737,119</b>	<b>1,699,335</b>	<b>1,721,566</b>	<b>1,733,905</b>	<b>12,339</b>	<b>0.7%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (219,963)</b>	<b>\$ (157,004)</b>	<b>\$ (323,179)</b>	<b>\$ (211,466)</b>	<b>\$ (282,010)</b>	<b>\$ (70,544)</b>	<b>33.4%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ (219,963)	\$ (157,004)	\$ (323,179)	\$ (211,466)	\$ (282,010)	\$ (70,544)	33.4%
Add Back Depreciation	234,651	215,847	218,773	216,543	232,531	15,988	7.4%
Less Capital Expenditures	(44,037)	(19,000)	(19,000)	-	(21,408)	(21,408)	-%
Less Capital Reserve Funding	-	-	-	-	-	-	-%
Less Debt Service Principal	(218,613)	(213,717)	(213,826)	(210,000)	(230,000)	(20,000)	9.5%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>(247,961)</b>	<b>(173,874)</b>	<b>(337,232)</b>	<b>(204,923)</b>	<b>(300,887)</b>	<b>(95,964)</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	247,961	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>-</b>	<b>(173,874)</b>	<b>(337,232)</b>	<b>(204,923)</b>	<b>(300,887)</b>	<b>(95,964)</b>	
Other Strategic Transfers from/(to) Reserves	-	-	-	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ -</b>	<b>\$ (173,874)</b>	<b>\$ (337,232)</b>	<b>\$ (204,923)</b>	<b>\$ (300,887)</b>	<b>\$ (95,964)</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE AT FORT KENT  
FY20 Proposed Budget  
E&G and AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 8,189,806	\$ 8,782,839	\$ 8,674,237	\$ 9,381,658	\$ 8,978,774	\$ (402,884)	-4.3%
Dining & Residence Revenue	1,653,276	1,512,141	1,297,601	1,463,200	1,407,995	(55,205)	-3.8%
Tuition Waivers/Scholarships	(948,993)	(1,036,163)	(1,501,463)	(1,749,014)	(1,693,171)	55,843	-3.2%
Net Student Charges Revenue	8,894,088	9,258,817	8,470,375	9,095,844	8,693,598	(402,246)	-4.4%
State Appropriation	4,622,357	5,308,503	6,513,346	6,877,413	7,818,910	941,497	13.7%
Indirect Cost Recovery	37,167	49,376	43,369	32,500	37,500	5,000	15.4%
Investment Income/Gifts	-	-	-	-	-	-	-%
Sales/Services/Auxiliary	468,945	535,021	470,090	323,782	288,100	(35,682)	-11.0%
<b>Total Revenue</b>	<b>14,022,557</b>	<b>15,151,717</b>	<b>15,497,180</b>	<b>16,329,539</b>	<b>16,838,108</b>	<b>508,569</b>	<b>3.1%</b>
<b>Expenses</b>							
Personnel	8,910,552	9,179,647	9,484,524	10,027,614	10,247,077	219,463	2.2%
Fuel & Electricity	634,115	611,357	568,240	634,346	635,937	1,591	0.3%
Supplies & Services	1,617,082	1,302,311	1,272,433	1,259,791	1,348,241	88,450	7.0%
Shared Services	1,343,448	1,514,685	1,677,758	1,879,146	1,949,296	70,150	3.7%
Travel	311,165	303,866	347,921	405,250	401,100	(4,150)	-1.0%
Memberships, Contributions & Sponsorships	44,145	60,043	59,944	70,120	69,690	(430)	-0.6%
Maintenance & Alterations	277,649	294,985	262,827	304,620	304,941	321	0.1%
Interest	277,984	273,798	253,702	242,406	226,866	(15,540)	-6.4%
Depreciation	856,020	882,480	847,527	941,104	946,429	5,325	0.6%
Other Expenses & Transfers	1,498,631	1,532,509	427,824	724,125	832,513	108,388	15.0%
<b>Total Operating Expenses &amp; Transfers</b>	<b>15,770,789</b>	<b>15,955,681</b>	<b>15,202,700</b>	<b>16,488,522</b>	<b>16,962,090</b>	<b>473,568</b>	<b>2.9%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (1,748,232)</b>	<b>\$ (803,964)</b>	<b>\$ 294,480</b>	<b>\$ (158,983)</b>	<b>\$ (123,982)</b>	<b>\$ 35,001</b>	<b>-22.0%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ (1,748,232)	\$ (803,964)	\$ 294,480	\$ (158,983)	\$ (123,982)	\$ 35,001	-22.0%
Add Back Depreciation	856,020	882,480	847,527	941,104	946,429	5,325	0.6%
Less Capital Expenditures	(219,968)	(471,098)	(289,688)	(220,000)	(246,408)	(26,408)	12.0%
Less Capital Reserve Funding	-	(27,445)	-	-	-	-	-%
Less Debt Service Principal	(387,300)	(579,973)	(541,167)	(555,488)	(576,039)	(20,551)	3.7%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>(1,499,480)</b>	<b>(1,000,000)</b>	<b>311,153</b>	<b>6,633</b>	<b>-</b>	<b>(6,633)</b>	
Transfer from/(to) Administrative Savings Rsrv	-	1,000,000	-	-	-	-	
Transfer from/(to) Budget Stabilization	1,499,480	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>-</b>	<b>0</b>	<b>311,153</b>	<b>6,633</b>	<b>-</b>	<b>(6,633)</b>	
Other Strategic Transfers from/(to) Reserves	-	-	-	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ -</b>	<b>\$ 0</b>	<b>\$ 311,153</b>	<b>\$ 6,633</b>	<b>\$ -</b>	<b>\$ (6,633)</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE AT PRESQUE ISLE  
FY20 Proposed Budget  
E&G

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 6,425,228	\$ 6,750,613	\$ 7,539,255	\$ 8,779,897	\$ 8,989,424	\$ 209,527	2.4%
Dining & Residence Revenue	10,979	11,417	10,759	-	-	-	-%
Tuition Waivers/Scholarships	(1,310,381)	(1,405,510)	(1,488,961)	(1,778,532)	(1,682,900)	95,632	-5.4%
Net Student Charges Revenue	5,125,826	5,356,521	6,061,053	7,001,365	7,306,524	305,159	4.4%
State Appropriation	6,469,554	6,999,217	7,936,764	7,508,452	8,017,134	508,682	6.8%
Indirect Cost Recovery	156,853	146,435	154,225	155,000	155,000	-	0.0%
Investment Income/Gifts	-	-	100	-	-	-	-%
Sales/Services/Auxiliary	738,170	602,896	641,160	518,722	510,644	(8,078)	-1.6%
<b>Total Revenue</b>	<b>12,490,403</b>	<b>13,105,069</b>	<b>14,793,302</b>	<b>15,183,539</b>	<b>15,989,302</b>	<b>805,763</b>	<b>5.3%</b>
<b>Expenses</b>							
Personnel	9,908,585	9,712,434	9,943,781	10,144,854	10,348,986	204,132	2.0%
Fuel & Electricity	435,403	449,116	427,647	557,375	478,200	(79,175)	-14.2%
Supplies & Services	1,186,692	1,305,921	1,065,177	841,141	1,396,500	555,359	66.0%
Shared Services	1,497,255	1,781,732	1,967,428	2,091,157	2,131,683	40,526	1.9%
Travel	313,195	332,250	321,935	389,380	361,375	(28,005)	-7.2%
Memberships, Contributions & Sponsorships	54,081	61,693	61,725	62,715	76,533	13,818	22.0%
Maintenance & Alterations	383,294	1,168,807	461,143	313,834	335,650	21,816	7.0%
Interest	64,669	63,816	60,380	58,590	57,490	(1,100)	-1.9%
Depreciation	812,484	845,286	918,182	877,030	847,590	(29,440)	-3.4%
Other Expenses & Transfers	461,354	(594,818)	219,482	668,151	722,442	54,291	8.1%
<b>Total Operating Expenses &amp; Transfers</b>	<b>15,117,012</b>	<b>15,126,236</b>	<b>15,446,879</b>	<b>16,004,227</b>	<b>16,756,449</b>	<b>752,222</b>	<b>4.7%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (2,626,609)</b>	<b>\$ (2,021,167)</b>	<b>\$ (653,578)</b>	<b>\$ (820,688)</b>	<b>\$ (767,147)</b>	<b>\$ 53,541</b>	<b>-6.5%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ (2,626,609)	\$ (2,021,167)	\$ (653,578)	\$ (820,688)	\$ (767,147)	\$ 53,541	-6.5%
Add Back Depreciation	812,484	845,286	918,182	877,030	847,590	(29,440)	-3.4%
Less Capital Expenditures	(180,653)	(244,755)	(121,702)	(160,176)	(167,383)	(7,207)	4.5%
Less Capital Reserve Funding	-	-	-	(20,724)	(6,369)	14,355	-69.3%
Less Debt Service Principal	(59,370)	(59,718)	(60,395)	(72,030)	(89,370)	(17,340)	24.1%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>(2,054,148)</b>	<b>(1,480,354)</b>	<b>82,508</b>	<b>(196,588)</b>	<b>(182,679)</b>	<b>13,909</b>	
Transfer from/(to) Administrative Savings Rsrv	-	1,000,000	-	-	-	-	
Transfer from/(to) Budget Stabilization	1,773,481	300,000	-	-	-	-	
<b>Net Change Subtotal</b>	<b>(280,667)</b>	<b>(180,354)</b>	<b>82,508</b>	<b>(196,588)</b>	<b>(182,679)</b>	<b>13,909</b>	
Other Strategic Transfers from/(to) Reserves	-	-	-	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ (280,667)</b>	<b>\$ (180,354)</b>	<b>\$ 82,508</b>	<b>\$ (196,588)</b>	<b>\$ (182,679)</b>	<b>\$ 13,909</b>	



Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE AT PRESQUE ISLE  
FY20 Proposed Budget  
AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ -	\$ 450	\$ 550	\$ -	\$ -	\$ -	-%
Dining & Residence Revenue	2,120,715	2,099,405	1,974,911	2,270,966	2,349,526	78,560	3.5%
Tuition Waivers/Scholarships	(66,876)	(232,615)	(239,169)	(227,600)	(227,600)	-	0.0%
Net Student Charges Revenue	2,053,839	1,867,240	1,736,292	2,043,366	2,121,926	78,560	3.8%
State Appropriation	-	-	-	-	-	-	-%
Indirect Cost Recovery	-	-	-	-	-	-	-%
Investment Income/Gifts	-	-	-	-	-	-	-%
Sales/Services/Auxiliary	145,054	155,377	146,793	111,075	94,000	(17,075)	-15.4%
<b>Total Revenue</b>	<b>2,198,894</b>	<b>2,022,617</b>	<b>1,883,085</b>	<b>2,154,441</b>	<b>2,215,926</b>	<b>61,485</b>	<b>2.9%</b>
<b>Expenses</b>							
Personnel	322,816	327,573	229,020	281,321	287,605	6,284	2.2%
Fuel & Electricity	353,731	309,219	312,067	333,000	325,400	(7,600)	-2.3%
Supplies & Services	773,406	884,538	812,877	849,142	820,442	(28,700)	-3.4%
Shared Services	-	-	-	-	-	-	-%
Travel	3,050	4,157	4,402	1,900	1,900	-	0.0%
Memberships, Contributions & Sponsorships	435	-	-	386	386	-	0.0%
Maintenance & Alterations	314,616	458,547	225,125	292,537	297,500	4,963	1.7%
Interest	-	-	-	392	1,131	739	188.5%
Depreciation	72,348	66,629	62,270	61,413	69,726	8,313	13.5%
Other Expenses & Transfers	79,468	114,613	111,785	126,784	124,434	(2,350)	-1.9%
<b>Total Operating Expenses &amp; Transfers</b>	<b>1,919,871</b>	<b>2,165,274</b>	<b>1,757,546</b>	<b>1,946,875</b>	<b>1,928,524</b>	<b>(18,351)</b>	<b>-0.9%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 279,023</b>	<b>\$ (142,657)</b>	<b>\$ 125,539</b>	<b>\$ 207,566</b>	<b>\$ 287,402</b>	<b>\$ 79,836</b>	<b>38.5%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ 279,023	\$ (142,657)	\$ 125,539	\$ 207,566	\$ 287,402	\$ 79,836	38.5%
Add Back Depreciation	72,348	66,629	62,270	61,413	69,726	8,313	13.5%
Less Capital Expenditures	(70,704)	(148,044)	(169,620)	(50,000)	(100,000)	(50,000)	100.0%
Less Capital Reserve Funding	-	-	-	(19,100)	(19,100)	-	0.0%
Less Debt Service Principal	-	-	-	(3,291)	(9,780)	(6,489)	197.2%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>280,667</b>	<b>(224,072)</b>	<b>18,189</b>	<b>196,588</b>	<b>228,248</b>	<b>31,660</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>280,667</b>	<b>(224,072)</b>	<b>18,189</b>	<b>196,588</b>	<b>228,248</b>	<b>31,660</b>	
Other Strategic Transfers from/(to) Reserves	-	-	-	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 280,667</b>	<b>\$ (224,072)</b>	<b>\$ 18,189</b>	<b>\$ 196,588</b>	<b>\$ 228,248</b>	<b>\$ 31,660</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF MAINE AT PRESQUE ISLE  
FY20 Proposed Budget  
E&G and AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 6,425,228	\$ 6,751,063	\$ 7,539,805	\$ 8,779,897	\$ 8,989,424	\$ 209,527	2.4%
Dining & Residence Revenue	2,131,695	2,110,822	1,985,670	2,270,966	2,349,526	78,560	3.5%
Tuition Waivers/Scholarships	(1,377,257)	(1,638,125)	(1,728,130)	(2,006,132)	(1,910,500)	95,632	-4.8%
Net Student Charges Revenue	7,179,666	7,223,761	7,797,345	9,044,731	9,428,450	383,719	4.2%
State Appropriation	6,469,554	6,999,217	7,936,764	7,508,452	8,017,134	508,682	6.8%
Indirect Cost Recovery	156,853	146,435	154,225	155,000	155,000	-	0.0%
Investment Income/Gifts	-	-	100	-	-	-	-%
Sales/Services/Auxiliary	883,224	758,273	787,952	629,797	604,644	(25,153)	-4.0%
<b>Total Revenue</b>	<b>14,689,296</b>	<b>15,127,686</b>	<b>16,676,386</b>	<b>17,337,980</b>	<b>18,205,228</b>	<b>867,248</b>	<b>5.0%</b>
<b>Expenses</b>							
Personnel	10,231,401	10,040,006	10,172,800	10,426,175	10,636,591	210,416	2.0%
Fuel & Electricity	789,134	758,335	739,714	890,375	803,600	(86,775)	-9.7%
Supplies & Services	1,960,098	2,190,459	1,878,055	1,690,283	2,216,942	526,659	31.2%
Shared Services	1,497,255	1,781,732	1,967,428	2,091,157	2,131,683	40,526	1.9%
Travel	316,246	336,407	326,337	391,280	363,275	(28,005)	-7.2%
Memberships, Contributions & Sponsorships	54,516	61,693	61,725	63,101	76,919	13,818	21.9%
Maintenance & Alterations	697,910	1,627,353	686,268	606,371	633,150	26,779	4.4%
Interest	64,669	63,816	60,380	58,982	58,621	(361)	-0.6%
Depreciation	884,832	911,915	980,451	938,443	917,316	(21,127)	-2.3%
Other Expenses & Transfers	540,822	(480,206)	331,266	794,935	846,876	51,941	6.5%
<b>Total Operating Expenses &amp; Transfers</b>	<b>17,036,883</b>	<b>17,291,510</b>	<b>17,204,425</b>	<b>17,951,102</b>	<b>18,684,973</b>	<b>733,871</b>	<b>4.1%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (2,347,587)</b>	<b>\$ (2,163,824)</b>	<b>\$ (528,039)</b>	<b>\$ (613,122)</b>	<b>\$ (479,745)</b>	<b>\$ 133,377</b>	<b>-21.8%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ (2,347,587)	\$ (2,163,824)	\$ (528,039)	\$ (613,122)	\$ (479,745)	\$ 133,377	-21.8%
Add Back Depreciation	884,832	911,915	980,451	938,443	917,316	(21,127)	-2.3%
Less Capital Expenditures	(251,357)	(392,799)	(291,321)	(210,176)	(267,383)	(57,207)	27.2%
Less Capital Reserve Funding	-	-	-	(39,824)	(25,469)	14,355	-36.0%
Less Debt Service Principal	(59,370)	(59,718)	(60,395)	(75,321)	(99,150)	(23,829)	31.6%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>(1,773,481)</b>	<b>(1,704,426)</b>	<b>100,696</b>	<b>-</b>	<b>45,569</b>	<b>45,569</b>	
Transfer from/(to) Administrative Savings Rsrv	-	1,000,000	-	-	-	-	
Transfer from/(to) Budget Stabilization	1,773,481	300,000	-	-	-	-	
<b>Net Change Subtotal</b>	<b>-</b>	<b>(404,426)</b>	<b>100,696</b>	<b>-</b>	<b>45,569</b>	<b>45,569</b>	
Other Strategic Transfers from/(to) Reserves	-	-	-	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ -</b>	<b>\$ (404,426)</b>	<b>\$ 100,696</b>	<b>\$ -</b>	<b>\$ 45,569</b>	<b>\$ 45,569</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF SOUTHERN MAINE  
FY20 Proposed Budget  
E&G

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 67,202,615	\$ 68,649,748	\$ 74,064,738	\$ 76,548,315	\$ 81,572,781	\$ 5,024,466	6.6%
Dining & Residence Revenue	2,775	2,475	3,600	-	-	-	-%
Tuition Waivers/Scholarships	(11,130,706)	(13,731,328)	(16,927,659)	(17,893,874)	(17,801,165)	92,709	-0.5%
Net Student Charges Revenue	56,074,684	54,920,895	57,140,678	58,654,441	63,771,616	5,117,175	8.7%
State Appropriation	44,085,762	48,032,552	47,783,008	47,775,142	48,098,693	323,551	0.7%
Indirect Cost Recovery	3,424,032	3,579,669	3,424,630	3,500,000	3,525,000	25,000	0.7%
Investment Income/Gifts	37,916	191,835	192,343	120,000	120,000	-	0.0%
Sales/Services/Auxiliary	4,096,210	3,517,461	3,549,012	3,621,293	3,819,146	197,853	5.5%
<b>Total Revenue</b>	<b>107,718,604</b>	<b>110,242,423</b>	<b>112,089,672</b>	<b>113,670,876</b>	<b>119,334,455</b>	<b>5,663,579</b>	<b>5.0%</b>
<b>Expenses</b>							
Personnel	74,234,183	75,704,599	77,567,109	81,861,358	86,171,022	4,309,664	5.3%
Fuel & Electricity	2,500,895	2,277,018	2,668,953	2,543,465	3,066,649	523,184	20.6%
Supplies & Services	4,793,048	5,633,769	6,456,359	5,542,281	5,890,000	347,719	6.3%
Shared Services	9,688,338	12,507,766	11,810,828	12,374,359	12,610,098	235,739	1.9%
Travel	1,135,178	1,310,374	1,415,895	1,158,109	1,180,815	22,706	2.0%
Memberships, Contributions & Sponsorships	235,138	289,877	258,221	370,837	326,597	(44,240)	-11.9%
Maintenance & Alterations	3,578,550	1,881,140	2,582,313	1,869,068	1,920,401	51,333	2.7%
Interest	819,965	843,995	729,015	707,501	601,043	(106,458)	-15.0%
Depreciation	5,999,799	6,102,457	6,410,113	6,502,555	6,781,045	278,490	4.3%
Other Expenses & Transfers	1,703,223	3,219,931	3,318,772	4,962,893	5,495,502	532,609	10.7%
<b>Total Operating Expenses &amp; Transfers</b>	<b>104,688,317</b>	<b>109,770,924</b>	<b>113,217,578</b>	<b>117,892,426</b>	<b>124,043,172</b>	<b>6,150,746</b>	<b>5.2%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 3,030,287</b>	<b>\$ 471,499</b>	<b>\$ (1,127,906)</b>	<b>\$ (4,221,550)</b>	<b>\$ (4,708,717)</b>	<b>\$ (487,167)</b>	<b>11.5%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ 3,030,287	\$ 471,499	\$ (1,127,906)	\$ (4,221,550)	\$ (4,708,717)	\$ (487,167)	11.5%
Add Back Depreciation	5,999,799	6,102,457	6,410,113	6,502,555	6,781,045	278,490	4.3%
Less Capital Expenditures	(5,897,475)	(3,812,034)	(1,615,041)	(1,800,556)	(1,700,556)	100,000	-5.6%
Less Capital Reserve Funding	(1,250,000)	-	-	-	-	-	-%
Less Debt Service Principal	(1,127,935)	(1,727,693)	(1,663,761)	(1,673,895)	(1,296,772)	377,123	-22.5%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>754,676</b>	<b>1,034,229</b>	<b>2,003,405</b>	<b>(1,193,446)</b>	<b>(925,000)</b>	<b>268,446</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	105,000	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	275,320	500,000	500,000	-	
<b>Net Change Subtotal</b>	<b>754,676</b>	<b>1,034,229</b>	<b>2,383,725</b>	<b>(693,446)</b>	<b>(425,000)</b>	<b>268,446</b>	
Other Strategic Transfers from/(to) Reserves	2,601,067	818,370	272,078	693,446	425,000	(268,446)	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 3,355,743</b>	<b>\$ 1,852,598</b>	<b>\$ 2,655,803</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

# Board of Trustees Meeting - Attachments

## UNIVERSITY OF SOUTHERN MAINE FY20 Proposed Budget E&G EXCLUDES LAW SCHOOL

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 60,932,516	\$ 62,602,040	\$ 67,980,844	\$ 70,180,235	\$ 75,324,733	\$ 5,144,498	7.3%
Dining & Residence Revenue	2,775	2,475	3,600	-	-	-	-%
Tuition Waivers/Scholarships	(10,181,967)	(12,276,891)	(15,132,311)	(15,993,874)	(16,321,251)	(327,377)	2.0%
Net Student Charges Revenue	50,753,324	50,327,624	52,852,134	54,186,361	59,003,482	4,817,121	8.9%
State Appropriation	44,085,762	48,032,552	47,783,008	47,775,142	48,098,693	323,551	0.7%
Indirect Cost Recovery	3,424,032	3,579,669	3,424,630	3,500,000	3,525,000	25,000	0.7%
Investment Income/Gifts	37,916	125,675	127,698	120,000	120,000	-	0.0%
Sales/Services/Auxiliary	4,077,304	3,498,369	3,540,360	3,621,293	3,819,146	197,853	5.5%
<b>Total Revenue</b>	<b>102,378,338</b>	<b>105,563,898</b>	<b>107,727,829</b>	<b>109,202,796</b>	<b>114,566,321</b>	<b>5,363,525</b>	<b>4.9%</b>
<b>Expenses</b>							
Personnel	68,794,630	70,358,944	72,368,591	76,319,390	80,635,217	4,315,827	5.7%
Fuel & Electricity	2,500,895	2,277,018	2,668,953	2,543,465	3,066,649	523,184	20.6%
Supplies & Services	4,465,431	5,335,376	6,189,136	5,305,991	5,653,710	347,719	6.6%
Shared Services	9,688,338	12,507,766	11,810,828	12,374,359	12,610,098	235,739	1.9%
Travel	1,043,562	1,196,675	1,324,700	1,123,188	1,145,894	22,706	2.0%
Memberships, Contributions & Sponsorships	184,999	236,530	216,754	344,137	299,897	(44,240)	-12.9%
Maintenance & Alterations	3,548,015	1,865,937	2,546,105	1,865,818	1,917,151	51,333	2.8%
Interest	819,965	843,995	729,015	707,501	601,043	(106,458)	-15.0%
Depreciation	5,999,799	6,102,457	6,410,113	6,502,555	6,781,045	278,490	4.3%
Other Expenses & Transfers	885,276	2,491,350	2,523,443	5,106,726	5,639,334	532,608	10.4%
<b>Total Operating Expenses &amp; Transfers</b>	<b>97,930,910</b>	<b>103,216,047</b>	<b>106,787,638</b>	<b>112,193,130</b>	<b>118,350,038</b>	<b>6,156,908</b>	<b>5.5%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 4,447,428</b>	<b>\$ 2,347,851</b>	<b>\$ 940,192</b>	<b>\$ (2,990,334)</b>	<b>\$ (3,783,717)</b>	<b>\$ (793,383)</b>	<b>26.5%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ 4,447,428	\$ 2,347,851	\$ 940,192	\$ (2,990,334)	\$ (3,783,717)	\$ (793,383)	26.5%
Add Back Depreciation	5,999,799	6,102,457	6,410,113	6,502,555	6,781,045	278,490	4.3%
Less Capital Expenditures	(5,897,475)	(3,811,093)	(1,613,575)	(1,800,556)	(1,700,556)	100,000	-5.6%
Less Capital Reserve Funding	(1,250,000)	-	-	-	-	-	-%
Less Debt Service Principal	(1,127,935)	(1,727,693)	(1,663,761)	(1,673,895)	(1,296,772)	377,123	-22.5%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>2,171,817</b>	<b>2,911,521</b>	<b>4,072,969</b>	<b>37,770</b>	<b>-</b>	<b>(37,770)</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>2,171,817</b>	<b>2,911,521</b>	<b>4,072,969</b>	<b>37,770</b>	<b>-</b>	<b>(37,770)</b>	
Other Strategic Transfers from/(to) Reserves	2,601,067	155,435	272,078	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 4,772,884</b>	<b>\$ 3,066,957</b>	<b>\$ 4,345,046</b>	<b>\$ 37,770</b>	<b>\$ -</b>	<b>\$ (37,770)</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF SOUTHERN MAINE  
FY20 Proposed Budget  
E&G  
LAW SCHOOL

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 6,270,098	\$ 6,047,708	\$ 6,083,894	\$ 6,368,080	\$ 6,248,048	\$ (120,032)	-1.9%
Dining & Residence Revenue	-	-	-	-	-	-	-%
Tuition Waivers/Scholarships	(948,738)	(1,454,437)	(1,795,349)	(1,900,000)	(1,479,914)	420,086	-22.1%
Net Student Charges Revenue	5,321,360	4,593,272	4,288,545	4,468,080	4,768,134	300,054	6.7%
State Appropriation	-	-	-	-	-	-	-%
Indirect Cost Recovery	-	-	-	-	-	-	-%
Investment Income/Gifts	-	66,161	64,645	-	-	-	-%
Sales/Services/Auxiliary	18,906	19,092	8,653	-	-	-	-%
<b>Total Revenue</b>	<b>5,340,266</b>	<b>4,678,525</b>	<b>4,361,842</b>	<b>4,468,080</b>	<b>4,768,134</b>	<b>300,054</b>	<b>6.7%</b>
<b>Expenses</b>							
Personnel	5,439,553	5,345,655	5,198,518	5,541,968	5,535,805	(6,163)	-0.1%
Fuel & Electricity	-	-	-	-	-	-	-%
Supplies & Services	327,617	298,393	267,223	236,290	236,290	-	0.0%
Shared Services	-	-	-	-	-	-	-%
Travel	91,616	113,699	91,195	34,921	34,921	-	0.0%
Memberships, Contributions & Sponsorships	50,139	53,347	41,467	26,700	26,700	-	0.0%
Maintenance & Alterations	30,536	15,203	36,209	3,250	3,250	-	0.0%
Interest	-	-	-	-	-	-	-%
Depreciation	-	-	-	-	-	-	-%
Other Expenses & Transfers	817,947	728,580	795,329	(143,833)	(143,832)	1	0.0%
<b>Total Operating Expenses &amp; Transfers</b>	<b>6,757,407</b>	<b>6,554,877</b>	<b>6,429,940</b>	<b>5,699,296</b>	<b>5,693,134</b>	<b>(6,162)</b>	<b>-0.1%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (1,417,141)</b>	<b>\$ (1,876,352)</b>	<b>\$ (2,068,098)</b>	<b>\$ (1,231,216)</b>	<b>\$ (925,000)</b>	<b>\$ 306,216</b>	<b>-24.9%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ (1,417,141)	\$ (1,876,352)	\$ (2,068,098)	\$ (1,231,216)	\$ (925,000)	\$ 306,216	-24.9%
Add Back Depreciation	-	-	-	-	-	-	-%
Less Capital Expenditures	-	(941)	(1,466)	-	-	-	-%
Less Capital Reserve Funding	-	-	-	-	-	-	-%
Less Debt Service Principal	-	-	-	-	-	-	-%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>(1,417,141)</b>	<b>(1,877,293)</b>	<b>(2,069,564)</b>	<b>(1,231,216)</b>	<b>(925,000)</b>	<b>306,216</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	105,000	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	275,320	500,000	500,000	-	
<b>Net Change Subtotal</b>	<b>(1,417,141)</b>	<b>(1,877,293)</b>	<b>(1,689,244)</b>	<b>(731,216)</b>	<b>(425,000)</b>	<b>306,216</b>	
Other Strategic Transfers from/(to) Reserves	-	662,934	-	693,446	425,000	(268,446)	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ (1,417,141)</b>	<b>\$ (1,214,358)</b>	<b>\$ (1,689,244)</b>	<b>\$ (37,770)</b>	<b>\$ -</b>	<b>\$ 37,770</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF SOUTHERN MAINE  
FY20 Proposed Budget  
AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 1,161,453	\$ 1,125,827	\$ 1,133,064	\$ 1,227,714	\$ 1,227,714	\$ -	0.0%
Dining & Residence Revenue	10,559,895	10,970,684	11,149,684	11,788,418	12,783,470	995,052	8.4%
Tuition Waivers/Scholarships	(562,460)	(492,898)	(408,901)	(345,800)	(400,000)	(54,200)	15.7%
Net Student Charges Revenue	11,158,888	11,603,612	11,873,847	12,670,332	13,611,184	940,852	7.4%
State Appropriation	-	-	-	-	-	-	-%
Indirect Cost Recovery	-	-	-	-	-	-	-%
Investment Income/Gifts	-	-	-	-	-	-	-%
Sales/Services/Auxiliary	2,098,154	2,327,723	2,097,211	2,364,064	641,800	(1,722,264)	-72.9%
<b>Total Revenue</b>	<b>13,257,042</b>	<b>13,931,335</b>	<b>13,971,058</b>	<b>15,034,396</b>	<b>14,252,984</b>	<b>(781,412)</b>	<b>-5.2%</b>
<b>Expenses</b>							
Personnel	1,882,937	1,748,815	1,953,423	2,405,505	2,467,727	62,222	2.6%
Fuel & Electricity	1,005,991	1,031,819	813,249	1,028,630	1,010,372	(18,258)	-1.8%
Supplies & Services	5,150,397	5,180,348	5,171,487	5,422,044	4,643,282	(778,762)	-14.4%
Shared Services	117,299	-	-	-	-	-	-%
Travel	2,409	6,849	15,985	15,100	16,600	1,500	9.9%
Memberships, Contributions & Sponsorships	2,549	2,357	1,769	3,100	2,500	(600)	-19.4%
Maintenance & Alterations	1,133,219	815,855	638,681	687,818	932,218	244,400	35.5%
Interest	1,267,627	1,231,067	1,170,288	1,096,513	1,020,884	(75,629)	-6.9%
Depreciation	807,463	849,846	1,020,736	1,117,016	1,174,780	57,764	5.2%
Other Expenses & Transfers	1,692,688	1,978,618	2,074,008	2,518,025	2,327,342	(190,683)	-7.6%
<b>Total Operating Expenses &amp; Transfers</b>	<b>13,062,580</b>	<b>12,845,574</b>	<b>12,859,628</b>	<b>14,293,751</b>	<b>13,595,705</b>	<b>(698,046)</b>	<b>-4.9%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 194,462</b>	<b>\$ 1,085,760</b>	<b>\$ 1,111,430</b>	<b>\$ 740,645</b>	<b>\$ 657,279</b>	<b>\$ (83,366)</b>	<b>-11.3%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ 194,462	\$ 1,085,760	\$ 1,111,430	\$ 740,645	\$ 657,279	\$ (83,366)	-11.3%
Add Back Depreciation	807,463	849,846	1,020,736	1,117,016	1,174,780	57,764	5.2%
Less Capital Expenditures	(38,979)	(118,194)	(174,844)	(22,850)	(22,850)	-	0.0%
Less Capital Reserve Funding	-	-	-	-	-	-	-%
Less Debt Service Principal	(1,487,520)	(1,536,682)	(1,606,907)	(1,676,600)	(1,748,810)	(72,210)	4.3%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>(524,574)</b>	<b>280,730</b>	<b>350,415</b>	<b>158,211</b>	<b>60,399</b>	<b>(97,812)</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>(524,574)</b>	<b>280,730</b>	<b>350,415</b>	<b>158,211</b>	<b>60,399</b>	<b>(97,812)</b>	
Other Strategic Transfers from/(to) Reserves	(6,046)	(6,046)	-	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ (530,620)</b>	<b>\$ 274,684</b>	<b>\$ 350,415</b>	<b>\$ 158,211</b>	<b>\$ 60,399</b>	<b>\$ (97,812)</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY OF SOUTHERN MAINE  
FY20 Proposed Budget  
E&G and AUXILIARY

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 68,364,067	\$ 69,775,575	\$ 75,197,802	\$ 77,776,029	\$ 82,800,495	\$ 5,024,466	6.5%
Dining & Residence Revenue	10,562,670	10,973,159	11,153,284	11,788,418	12,783,470	995,052	8.4%
Tuition Waivers/Scholarships	(11,693,166)	(14,224,226)	(17,336,560)	(18,239,674)	(18,201,165)	38,509	-0.2%
Net Student Charges Revenue	67,233,572	66,524,507	69,014,525	71,324,773	77,382,800	6,058,027	8.5%
State Appropriation	44,085,762	48,032,552	47,783,008	47,775,142	48,098,693	323,551	0.7%
Indirect Cost Recovery	3,424,032	3,579,669	3,424,630	3,500,000	3,525,000	25,000	0.7%
Investment Income/Gifts	37,916	191,835	192,343	120,000	120,000	-	0.0%
Sales/Services/Auxiliary	6,194,364	5,845,184	5,646,223	5,985,357	4,460,946	(1,524,411)	-25.5%
<b>Total Revenue</b>	<b>120,975,646</b>	<b>124,173,758</b>	<b>126,060,730</b>	<b>128,705,272</b>	<b>133,587,439</b>	<b>4,882,167</b>	<b>3.8%</b>
<b>Expenses</b>							
Personnel	76,117,120	77,453,413	79,520,533	84,266,863	88,638,749	4,371,886	5.2%
Fuel & Electricity	3,506,886	3,308,837	3,482,202	3,572,095	4,077,021	504,926	14.1%
Supplies & Services	9,943,445	10,814,117	11,627,846	10,964,325	10,533,282	(431,043)	-3.9%
Shared Services	9,805,637	12,507,766	11,810,828	12,374,359	12,610,098	235,739	1.9%
Travel	1,137,587	1,317,223	1,431,881	1,173,209	1,197,415	24,206	2.1%
Memberships, Contributions & Sponsorships	237,687	292,234	259,990	373,937	329,097	(44,840)	-12.0%
Maintenance & Alterations	4,711,769	2,696,995	3,220,994	2,556,886	2,852,619	295,733	11.6%
Interest	2,087,591	2,075,062	1,899,304	1,804,014	1,621,927	(182,087)	-10.1%
Depreciation	6,807,262	6,952,303	7,430,849	7,619,571	7,955,825	336,254	4.4%
Other Expenses & Transfers	3,395,911	5,198,549	5,392,780	7,480,918	7,822,844	341,926	4.6%
<b>Total Operating Expenses &amp; Transfers</b>	<b>117,750,897</b>	<b>122,616,498</b>	<b>126,077,206</b>	<b>132,186,177</b>	<b>137,638,877</b>	<b>5,452,700</b>	<b>4.1%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 3,224,749</b>	<b>\$ 1,557,259</b>	<b>\$ (16,476)</b>	<b>\$ (3,480,905)</b>	<b>\$ (4,051,438)</b>	<b>\$ (570,533)</b>	<b>16.4%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ 3,224,749	\$ 1,557,259	\$ (16,476)	\$ (3,480,905)	\$ (4,051,438)	\$ (570,533)	16.4%
Add Back Depreciation	6,807,262	6,952,303	7,430,849	7,619,571	7,955,825	336,254	4.4%
Less Capital Expenditures	(5,936,454)	(3,930,228)	(1,789,885)	(1,823,406)	(1,723,406)	100,000	-5.5%
Less Capital Reserve Funding	(1,250,000)	-	-	-	-	-	-%
Less Debt Service Principal	(2,615,455)	(3,264,375)	(3,270,668)	(3,350,495)	(3,045,582)	304,913	-9.1%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>230,102</b>	<b>1,314,959</b>	<b>2,353,820</b>	<b>(1,035,235)</b>	<b>(864,601)</b>	<b>170,634</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	105,000	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	275,320	500,000	500,000	-	
<b>Net Change Subtotal</b>	<b>230,102</b>	<b>1,314,959</b>	<b>2,734,140</b>	<b>(535,235)</b>	<b>(364,601)</b>	<b>170,634</b>	
Other Strategic Transfers from/(to) Reserves	2,595,021	812,324	272,078	693,446	425,000	(268,446)	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 2,825,123</b>	<b>\$ 2,127,283</b>	<b>\$ 3,006,218</b>	<b>\$ 158,211</b>	<b>\$ 60,399</b>	<b>\$ (97,812)</b>	

# Board of Trustees Meeting - Attachments

## UNIVERSITY OF SOUTHERN MAINE FY20 Proposed Budget E&G and AUXILIARY EXCLUDES LAW SCHOOL

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ 62,093,969	\$ 63,727,867	\$ 69,113,908	\$ 71,407,949	\$ 76,552,447	\$ 5,144,498	7.2%
Dining & Residence Revenue	10,562,670	10,973,159	11,153,284	11,788,418	12,783,470	995,052	8.4%
Tuition Waivers/Scholarships	(10,744,427)	(12,769,789)	(15,541,212)	(16,339,674)	(16,721,251)	(381,577)	2.3%
Net Student Charges Revenue	61,912,212	61,931,236	64,725,981	66,856,693	72,614,666	5,757,973	8.6%
State Appropriation	44,085,762	48,032,552	47,783,008	47,775,142	48,098,693	323,551	0.7%
Indirect Cost Recovery	3,424,032	3,579,669	3,424,630	3,500,000	3,525,000	25,000	0.7%
Investment Income/Gifts	37,916	125,675	127,698	120,000	120,000	-	0.0%
Sales/Services/Auxiliary	6,175,458	5,826,091	5,637,571	5,985,357	4,460,946	(1,524,411)	-25.5%
<b>Total Revenue</b>	<b>115,635,380</b>	<b>119,495,233</b>	<b>121,698,888</b>	<b>124,237,192</b>	<b>128,819,305</b>	<b>4,582,113</b>	<b>3.7%</b>
<b>Expenses</b>							
Personnel	70,677,567	72,107,759	74,322,015	78,724,895	83,102,944	4,378,049	5.6%
Fuel & Electricity	3,506,886	3,308,837	3,482,202	3,572,095	4,077,021	504,926	14.1%
Supplies & Services	9,615,829	10,515,723	11,360,623	10,728,035	10,296,992	(431,043)	-4.0%
Shared Services	9,805,637	12,507,766	11,810,828	12,374,359	12,610,098	235,739	1.9%
Travel	1,045,971	1,203,524	1,340,686	1,138,288	1,162,494	24,206	2.1%
Memberships, Contributions & Sponsorships	187,548	238,887	218,523	347,237	302,397	(44,840)	-12.9%
Maintenance & Alterations	4,681,234	2,681,792	3,184,786	2,553,636	2,849,369	295,733	11.6%
Interest	2,087,591	2,075,062	1,899,304	1,804,014	1,621,927	(182,087)	-10.1%
Depreciation	6,807,262	6,952,303	7,430,849	7,619,571	7,955,825	336,254	4.4%
Other Expenses & Transfers	2,577,964	4,469,969	4,597,451	7,624,751	7,966,676	341,925	4.5%
<b>Total Operating Expenses &amp; Transfers</b>	<b>110,993,490</b>	<b>116,061,622</b>	<b>119,647,266</b>	<b>126,486,881</b>	<b>131,945,743</b>	<b>5,458,862</b>	<b>4.3%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 4,641,890</b>	<b>\$ 3,433,611</b>	<b>\$ 2,051,622</b>	<b>\$ (2,249,689)</b>	<b>\$ (3,126,438)</b>	<b>\$ (876,749)</b>	<b>39.0%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ 4,641,890	\$ 3,433,611	\$ 2,051,622	\$ (2,249,689)	\$ (3,126,438)	\$ (876,749)	39.0%
Add Back Depreciation	6,807,262	6,952,303	7,430,849	7,619,571	7,955,825	336,254	4.4%
Less Capital Expenditures	(5,936,454)	(3,929,287)	(1,788,419)	(1,823,406)	(1,723,406)	100,000	-5.5%
Less Capital Reserve Funding	(1,250,000)	-	-	-	-	-	-%
Less Debt Service Principal	(2,615,455)	(3,264,375)	(3,270,668)	(3,350,495)	(3,045,582)	304,913	-9.1%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>1,647,243</b>	<b>3,192,252</b>	<b>4,423,384</b>	<b>195,981</b>	<b>60,399</b>	<b>(135,582)</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>1,647,243</b>	<b>3,192,252</b>	<b>4,423,384</b>	<b>195,981</b>	<b>60,399</b>	<b>(135,582)</b>	
Other Strategic Transfers from/(to) Reserves	2,595,021	149,389	272,078	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 4,242,264</b>	<b>\$ 3,341,641</b>	<b>\$ 4,695,462</b>	<b>\$ 195,981</b>	<b>\$ 60,399</b>	<b>\$ (135,582)</b>	



Board of Trustees Meeting - Attachments

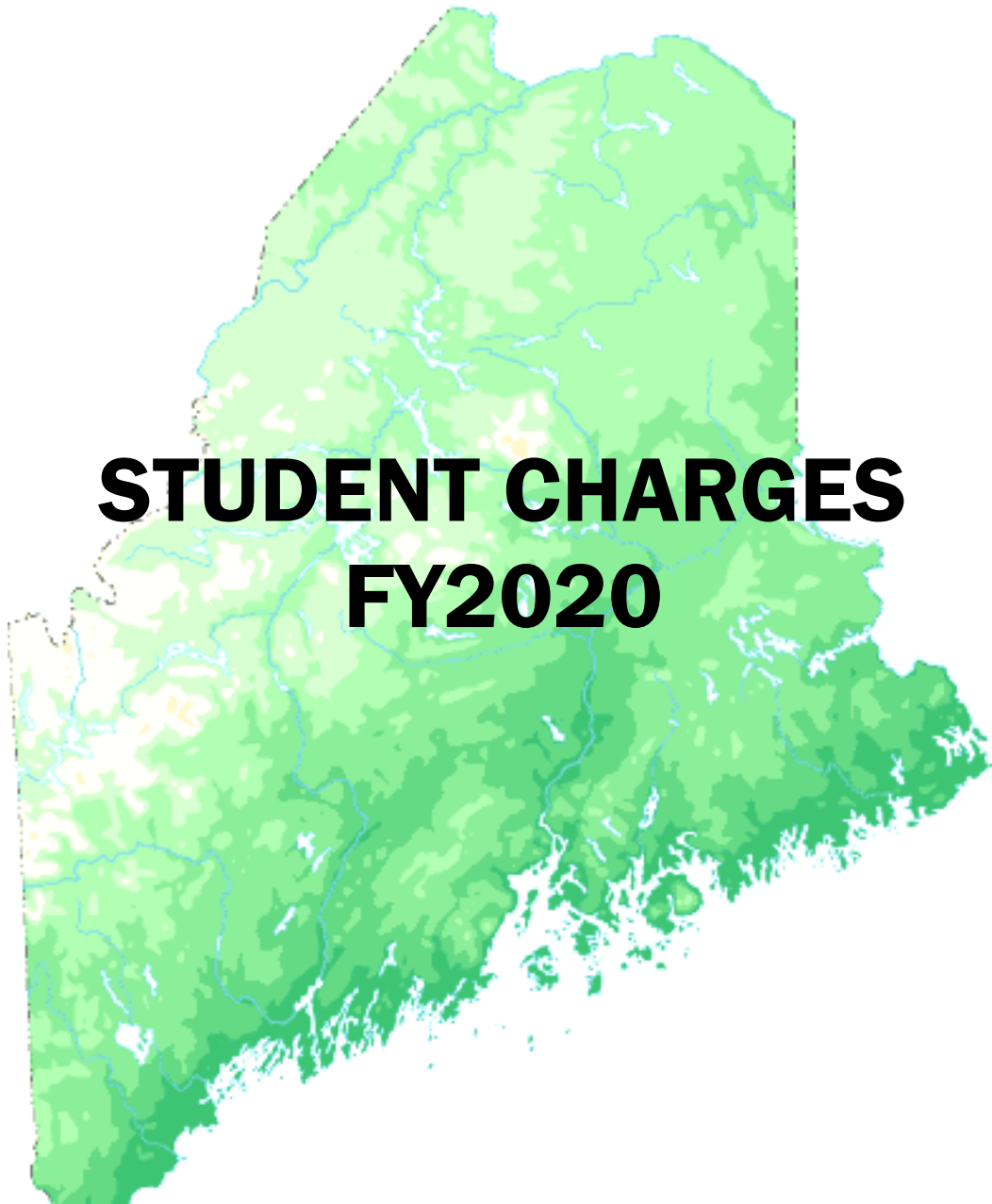
GOVERNANCE  
FY20 Proposed Budget  
E&G

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-%
Dining & Residence Revenue	-	-	-	-	-	-	-%
Tuition Waivers/Scholarships	-	-	-	-	-	-	-%
Net Student Charges Revenue	-	-	-	-	-	-	-%
State Appropriation	3,949,601	4,342,115	4,288,136	4,351,193	4,368,473	17,280	0.4%
Indirect Cost Recovery	-	-	-	-	-	-	-%
Investment Income/Gifts	-	-	-	-	-	-	-%
Sales/Services/Auxiliary	-	-	-	-	-	-	-%
<b>Total Revenue</b>	<b>3,949,601</b>	<b>4,342,115</b>	<b>4,288,136</b>	<b>4,351,193</b>	<b>4,368,473</b>	<b>17,280</b>	<b>0.4%</b>
<b>Expenses</b>							
Personnel	2,732,983	3,288,521	4,029,873	3,948,002	3,979,122	31,120	0.8%
Fuel & Electricity	1,801	2,431	1,924	3,200	3,200	-	0.0%
Supplies & Services	93,204	82,555	84,117	81,709	81,709	-	0.0%
Shared Services	418,535	641,998	511,319	580,337	594,540	14,203	2.4%
Travel	80,182	108,754	139,496	127,449	128,279	830	0.7%
Memberships, Contributions & Sponsorships	39,034	42,617	31,197	24,325	24,325	-	0.0%
Maintenance & Alterations	2,790	4,883	4,752	1,200	800	(400)	-33.3%
Interest	-	-	-	-	-	-	-%
Depreciation	-	-	-	-	-	-	-%
Other Expenses & Transfers	33,990	(187,002)	(148,453)	(415,029)	(443,502)	(28,473)	6.9%
<b>Total Operating Expenses &amp; Transfers</b>	<b>3,402,519</b>	<b>3,984,758</b>	<b>4,654,225</b>	<b>4,351,193</b>	<b>4,368,473</b>	<b>17,280</b>	<b>0.4%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 547,082</b>	<b>\$ 357,357</b>	<b>\$ (366,089)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ 547,082	\$ 357,357	\$ (366,089)	\$ -	\$ -	\$ -	-%
Add Back Depreciation	-	-	-	-	-	-	-%
Less Capital Expenditures	-	-	(895)	-	-	-	-%
Less Capital Reserve Funding	-	-	-	-	-	-	-%
Less Debt Service Principal	-	-	-	-	-	-	-%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>547,082</b>	<b>357,357</b>	<b>(366,984)</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>547,082</b>	<b>357,357</b>	<b>(366,984)</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Other Strategic Transfers from/(to) Reserves	-	(257,499)	263,457	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 547,082</b>	<b>\$ 99,858</b>	<b>\$ (103,528)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

Board of Trustees Meeting - Attachments

UNIVERSITY SERVICES  
FY20 Proposed Budget  
E&G

	FY16 ACTUALS	FY17 ACTUALS	FY18 ACTUALS	FY19 BASE	FY20 BASE	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-%
Dining & Residence Revenue	-	-	-	-	-	-	-%
Tuition Waivers/Scholarships	-	-	-	-	-	-	-%
Net Student Charges Revenue	-	-	-	-	-	-	-%
State Appropriation	11,457,517	8,551,022	3,801,740	3,801,740	9,073,575	5,271,835	138.7%
Indirect Cost Recovery	7,548	7,556	6,864	189,658	189,658	-	0.0%
Investment Income/Gifts	2,498,425	9,333,992	5,879,031	4,424,337	3,408,771	(1,015,566)	-23.0%
Sales/Services/Auxiliary	978,384	854,560	868,238	676,904	763,904	87,000	12.9%
<b>Total Revenue</b>	<b>14,941,873</b>	<b>18,747,130</b>	<b>10,555,874</b>	<b>9,092,639</b>	<b>13,435,908</b>	<b>4,343,269</b>	<b>47.8%</b>
<b>Expenses</b>							
Personnel	27,997,347	30,459,738	32,750,171	35,381,616	36,375,929	994,313	2.8%
Fuel & Electricity	64,148	20,942	63,362	9,410	9,410	-	0.0%
Supplies & Services	3,489,594	3,759,918	3,699,345	3,968,659	4,177,428	208,769	5.3%
Shared Services	(31,833,921)	(42,490,211)	(43,250,506)	(45,668,701)	(47,041,668)	(1,372,967)	3.0%
Travel	276,998	213,987	223,825	382,241	375,377	(6,864)	-1.8%
Memberships, Contributions & Sponsorships	442,668	472,950	337,789	382,891	380,141	(2,750)	-0.7%
Maintenance & Alterations	3,005,507	3,636,947	3,362,649	4,026,318	4,015,362	(10,956)	-0.3%
Interest	87,400	59,400	30,200	35,912	53,495	17,583	49.0%
Depreciation	3,866,031	3,870,513	4,558,071	4,835,520	4,024,716	(810,804)	-16.8%
Other Expenses & Transfers	4,018,046	2,348,882	3,354,825	2,928,981	6,083,693	3,154,712	107.7%
Pooled Costs - Benefits	30,114	666,425	(5,806,607)	-	-	-	-%
Pooled Costs - Insurance	(179,036)	(552,367)	(508,697)	-	-	-	-%
<b>Total Operating Expenses &amp; Transfers</b>	<b>11,264,895</b>	<b>2,467,124</b>	<b>(1,185,573)</b>	<b>6,282,847</b>	<b>8,453,883</b>	<b>2,171,036</b>	<b>34.6%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 3,676,978</b>	<b>\$ 16,280,006</b>	<b>\$ 11,741,447</b>	<b>\$ 2,809,792</b>	<b>\$ 4,982,025</b>	<b>\$ 2,172,233</b>	<b>77.3%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)	\$ 3,676,978	\$ 16,280,006	\$ 11,741,447	\$ 2,809,792	\$ 4,982,025	\$ 2,172,233	77.3%
Add Back Depreciation	3,866,031	3,870,513	4,558,071	4,835,520	4,024,716	(810,804)	-16.8%
Less Capital Expenditures	(1,898,750)	(1,376,370)	(545,809)	(473,800)	(459,800)	14,000	-3.0%
Less Capital Reserve Funding	(29,471)	(1,943,449)	(3,067,317)	(4,387,337)	(3,371,771)	1,015,566	-23.1%
Less Debt Service Principal	(700,000)	(730,000)	(755,000)	(7,868)	(173,145)	(165,277)	2100.6%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>4,914,788</b>	<b>16,100,699</b>	<b>11,931,391</b>	<b>2,776,307</b>	<b>5,002,025</b>	<b>2,225,718</b>	
Transfer from/(to) Administrative Savings Rsrv	(3,702,250)	(5,792,912)	(2,663,792)	(3,301,740)	(5,002,025)	(1,700,285)	
Transfer from/(to) Budget Stabilization	-	-	(2,000,000)	-	-	-	
<b>Net Change Subtotal</b>	<b>1,212,538</b>	<b>10,307,788</b>	<b>7,267,599</b>	<b>(525,433)</b>	<b>-</b>	<b>525,433</b>	
Other Strategic Transfers from/(to) Reserves	1,640,261	(7,440,402)	(6,224,028)	525,433	-	(525,433)	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 2,852,799</b>	<b>\$ 2,867,386</b>	<b>\$ 1,043,571</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	



**May 20, 2019**



UNIVERSITY OF MAINE SYSTEM  
**STUDENT CHARGES**  
FY20  
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**UNIVERSITY OF MAINE SYSTEM**  
**FY20 TOTAL STUDENT CHARGES**

	Annual Tuition	Mandatory Fees	Tuition & Mandatory Fees <sup>1</sup>	Room & Board <sup>2</sup>	Total
<b>I. Undergraduate</b>					
<b>In-State</b>					
UM	\$9,000	\$2,438	\$11,438	\$10,666	\$22,104
UMA	7,170	998	8,168	9,050	17,218
UMF	8,992	915	9,907	9,902	19,809
UMFK	7,170	1,125	8,295	8,360	16,655
UMM	7,170	886	8,056	9,180	17,236
UMPI	7,170	1,070	8,240	8,496	16,736
USM	8,430	1,090	9,520	8,785	18,305
Average	7,872	1,217	9,089	9,232	18,321
<b>Out-of-State</b>					
UM	\$29,310	\$2,438	\$31,748	\$10,666	\$42,414
UMA <sup>3</sup>	17,340	998	18,338	9,050	27,388
UMF	19,840	915	20,755	9,902	30,657
UMFK	11,460	1,125	12,585	8,360	20,945
UMM	14,250	886	15,136	9,180	24,316
UMPI	11,460	1,070	12,530	8,496	21,026
USM	22,170	1,090	23,260	8,785	32,045
Average	17,976	1,217	19,193	9,232	28,425
<b>NEBHE</b>					
UM	\$14,850	\$2,438	\$17,288	\$10,666	\$27,954
UMA	11,460	998	12,458	9,050	\$21,508
UMF	14,848	915	15,763	9,902	25,665
UMFK	11,460	1,125	12,585	8,360	20,945
UMM	11,460	886	12,346	9,180	21,526
UMPI	11,460	1,070	12,530	8,496	21,026
USM	13,920	1,090	15,010	8,785	23,795
Average	12,780	1,217	13,997	9,232	23,229
<b>Canadian</b>					
UM	\$14,850	\$2,438	\$17,288	\$10,666	\$27,954
UMA	11,460	998	12,458	9,050	\$21,508
UMF	14,848	915	15,763	9,902	25,665
UMFK	11,460	1,125	12,585	8,360	20,945
UMM	11,460	886	12,346	9,180	21,526
UMPI	11,460	1,070	12,530	8,496	21,026
USM	13,920	1,090	15,010	8,785	23,795
Average	12,780	1,217	13,997	9,232	23,229

<sup>1</sup>Annual tuition & mandatory fees are based on 15 credit hours per semester for two semesters for undergraduate and law students (except UMF based on 16 credit hours per semester beginning in FY07) and 9 credit hours per semester for two semesters for graduate students.

<sup>2</sup>Rates shown are based on the meal plan and room type with the greatest projected number of students. Several meal plans and room types are available. Beginning in FY20, UMA has limited housing but no dining.

<sup>3</sup>UMA's out-of-state online annual tuition is 125% of the in-state rate.

**UNIVERSITY OF MAINE SYSTEM  
FY20 TOTAL STUDENT CHARGES**

	Annual Tuition	Mandatory Fees	Tuition & Mandatory Fees <sup>1</sup>	Room & Board <sup>2</sup>	Total
<b>II. Graduate</b>					
<b>In-State</b>					
UM	\$8,100	\$1,262	\$9,362	\$10,666	\$20,028
UMF	7,578	359	7,937	9,902	17,839
USM	7,578	558	8,136	8,785	16,921
Average	7,752	726	8,478	9,784	18,262
<b>Out-of-State</b>					
UM	\$26,388	\$1,262	\$27,650	\$10,666	\$38,316
UMF	11,250	359	11,609	9,902	21,511
USM	20,538	558	21,096	8,785	29,881
Average	19,392	726	20,118	9,784	29,902
<b>NEBHE</b>					
UM	\$13,374	\$1,262	\$14,636	\$10,666	\$25,302
USM	12,510	558	13,068	8,785	21,853
Average	12,942	910	13,852	9,726	23,578
<b>Canadian</b>					
UM	\$13,374	\$1,262	\$14,636	\$10,666	\$25,302
USM	12,510	558	13,068	8,785	21,853
Average	12,942	910	13,852	9,726	23,578

**III. Law School**

<b>In-State</b>	\$23,190	\$1,030	\$24,220	\$8,785	\$33,005
<b>Out-of-State</b>	\$34,680	\$1,030	\$35,710	\$8,785	\$44,495
<b>NEBHE/Canadian</b>	\$31,650	\$1,030	\$32,680	\$8,785	\$41,465

<sup>1</sup>Annual tuition & mandatory fees are based on 15 credit hours per semester for two semesters for undergraduate and law students (except UMF based on 16 credit hours per semester beginning in FY07) and 9 credit hours per semester for two semesters for graduate students.

<sup>2</sup>Rates shown are based on the meal plan and room type with the greatest projected number of students. Several meal plans and room types are available. Beginning in FY20, UMA has limited housing but no dining.

UNIVERSITY OF MAINE SYSTEM  
**FY20 TUITION RATES - PER CREDIT HOUR**

	<b>FY19 Rate</b>	<b>FY20 Rate</b>	<b>FY20 Increases</b>	
			<b>\$</b>	<b>%</b>
In-State				
Undergraduate				
UM	\$293	\$300	7	2.4
UMA/UMFK/UMM/UMPI	233	239	6	2.6
UMF	274	281	7	2.6
USM	271	281	10	3.7
Graduate				
UM	439	450	11	2.5
UMF/USM	407	421	14	3.4
Law	743	773	30	4.0
Out-of-State				
Undergraduate				
UM	953	977	24	2.5
UMA <sup>1</sup>	564	578	14	2.5
UMF	590	620	30	5.1
UMFK	373	382	9	2.4
UMM	475	475	-	-
UMPI	373	382	9	2.4
USM	713	739	26	3.6
Graduate				
UM	1,430	1,466	36	2.5
UMF	595	625	30	5.0
USM	1,100	1,141	41	3.7
Law	1,112	1,156	44	4.0

<sup>1</sup>The majority of UMA Out-of-State Undergraduate students are enrolled in Online programs = \$125% of in-state rate.

Academic Partnership rates vary by program.

UNIVERSITY OF MAINE SYSTEM  
**FY20 TUITION RATES - PER CREDIT HOUR**

	<b>FY19 Rate</b>	<b>FY20 Rate</b>	<b>FY20 Increases</b>	
			<b>\$</b>	<b>%</b>
NEBHE				
Undergraduate				
UM	\$469	\$495	26	5.5
UMA/UMFK/UMM/UMPI	373	382	9	2.4
UMF	439	464	25	5.7
USM	434	464	30	6.9
Graduate				
UM	702	743	41	5.8
USM	651	695	44	6.8
Law	1,014	1,055	41	4.0
Canadian				
Undergraduate				
UM	469	495	26	5.5
UMA/UMFK/UMM/UMPI	373	382	9	2.4
UMF	439	464	25	5.7
USM	434	464	30	6.9
Graduate				
UM	702	743	41	5.8
USM	651	695	44	6.8
Law	1,014	1,055	41	4.0

NOTE: In FY20, NEBHE rates are 160% or 165% the in-state rate. NEBHE rate can be up to 175% the in-state rate.



**UNIVERSITY OF MAINE SYSTEM  
ANNUAL TUITION RATES**

UNDERGRADUATE						FY19 to FY20	
						Annual Increase	
<u>In-State</u>	<u>FY16</u>	<u>FY17</u>	<u>FY18</u>	<u>FY19</u>	<u>FY20</u>	<u>\$</u>	<u>%</u>
UM	\$8,370	\$8,370	\$8,580	\$8,790	\$9,000	210	2.4
UMA	6,510	6,510	6,840	6,990	7,170	180	2.6
UMF	8,352	8,352	8,576	8,768	8,992	224	2.6
UMFK	6,600	6,600	6,840	6,990	7,170	180	2.6
UMM	6,660	6,660	6,840	6,990	7,170	180	2.6
UMPI	6,600	6,600	6,840	6,990	7,170	180	2.6
USM	7,590	7,590	7,860	8,130	8,430	300	3.7
Average	7,240	7,240	7,482	7,664	7,872	208	2.7
<u>Out-of-State</u>							
UM	\$26,640	\$27,240	\$27,960	\$28,590	\$29,310	720	2.5
UMA	15,750	16,110	16,530	16,920	17,340	420	2.5
UMF	17,440	17,440	18,144	18,880	19,840	960	5.1
UMFK	9,900	10,230	10,950	11,190	11,460	270	2.4
UMM	18,480	18,480	18,480	14,250	14,250	-	-
UMPI	9,900	10,230	10,950	11,190	11,460	270	2.4
USM	19,950	19,950	20,670	21,390	22,170	780	3.6
Average	16,866	17,097	17,669	17,487	17,976	489	2.8
<u>NEBHE</u>							
UM	\$12,570	\$12,960	\$13,740	\$14,070	\$14,850	780	5.5
UMA	9,750	10,080	10,950	11,190	11,460	270	2.4
UMF	12,544	12,960	13,728	14,048	14,848	800	5.7
UMFK	9,900	10,230	10,950	11,190	11,460	270	2.4
UMM	9,990	10,320	10,950	11,190	11,460	270	2.4
UMPI	9,900	10,230	10,950	11,190	11,460	270	2.4
USM	11,400	11,760	12,570	13,020	13,920	900	6.9
Average	10,865	11,220	11,977	12,271	12,780	509	4.1
<u>Canadian</u>							
UM	\$12,570	\$12,960	\$13,740	\$14,070	\$14,850	780	5.5
UMA	9,750	10,080	10,950	11,190	11,460	270	2.4
UMF	12,544	12,960	13,728	14,048	14,848	800	5.7
UMFK	9,900	10,230	10,950	11,190	11,460	270	2.4
UMM	10,530	10,530	11,160	11,190	11,460	270	2.4
UMPI	9,900	10,230	10,950	11,190	11,460	270	2.4
USM	11,400	11,760	12,570	13,020	13,920	900	6.9
Average	10,942	11,250	12,007	12,271	12,780	509	4.1

NOTE: Based on 15 credit hours per semester for two semesters for undergraduate and law students (except UMF based on 16 credit hours per semester beginning in FY07 & UMFK based on "Block" rate for 12-18 credit hours per semester in FY13 - FY17) and 9 credit hours per semester for two semesters for graduate students.

**UNIVERSITY OF MAINE SYSTEM  
ANNUAL TUITION RATES**

						<b>FY19 to FY20</b>	
						<b>Annual Increase</b>	
<b>GRADUATE</b>							
<u><b>In-State</b></u>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>	<b>FY19</b>	<b>FY20</b>	<b>\$</b>	<b>%</b>
UM	\$7,524	\$7,524	\$7,722	\$7,902	\$8,100	198	2.5
UMF	6,822	6,822	7,002	7,326	7,578	252	3.4
USM	6,840	6,840	7,074	7,326	7,578	252	3.4
<b>Average</b>	<b>7,062</b>	<b>7,062</b>	<b>7,266</b>	<b>7,518</b>	<b>7,752</b>	<b>234</b>	<b>3.1</b>
<u><b>Out-of-State</b></u>							
UM	\$23,940	\$24,498	\$25,146	\$25,740	\$26,388	648	2.5
UMF	9,900	9,900	10,296	10,710	11,250	540	5.0
USM	18,468	18,468	19,134	19,800	20,538	738	3.7
<b>Average</b>	<b>17,436</b>	<b>17,622</b>	<b>18,192</b>	<b>18,750</b>	<b>19,392</b>	<b>642</b>	<b>3.4</b>
<u><b>NEBHE</b></u>							
UM	\$11,286	\$11,664	\$12,348	\$12,636	\$13,374	738	5.8
USM	10,260	10,602	11,322	11,718	12,510	792	6.8
<b>Average</b>	<b>10,773</b>	<b>11,133</b>	<b>11,835</b>	<b>12,177</b>	<b>12,942</b>	<b>765</b>	<b>6.3</b>
<u><b>Canadian</b></u>							
UM	\$11,286	\$11,664	\$12,348	\$12,636	\$13,374	738	5.8
USM	10,260	10,602	11,322	11,718	12,510	792	6.8
<b>Average</b>	<b>10,773</b>	<b>11,133</b>	<b>11,835</b>	<b>12,177</b>	<b>12,942</b>	<b>765</b>	<b>6.3</b>
<b>LAW</b>							
<u><b>In-State</b></u>	\$22,290	\$22,290	\$22,290	\$22,290	\$23,190	900	4.0
<u><b>Out-of-State</b></u>	33,360	33,360	33,360	33,360	34,680	1,320	4.0
<u><b>NEBHE/Canadian</b></u>	30,420	30,420	30,420	30,420	31,650	1,230	4.0

NOTE: Based on 15 credit hours per semester for two semesters for undergraduate and law students (except UMF based on 16 credit hours per semester beginning in FY07 & UMF based on "Block" rate for 12-18 credit hours per semester in FY13 - FY17) and 9 credit hours per semester for two semesters for graduate students.

UNIVERSITY OF MAINE SYSTEM  
ANNUAL MANDATORY FEES<sup>1</sup>

University	Fee	Credit Hours	FY19	FY20	\$ Increase
<b>UM</b>	Graduate Student Activity Fee	1 or More Credit Hours	\$90.00	\$120.00	30.00
	Undergraduate Student Activity Fee	6 or More Credit Hours	106.00	106.00	-
	Communications Fee	6 or More Credit Hours	30.00	30.00	-
	Recreation Center Fee	0 to 5 Credit Hours	170.00	174.00	4.00
		6 or More Credit Hours	284.00	292.00	8.00
	Unified Fee	0 to 5 Credit Hours	262.00	268.00	6.00
		6 to 11 Credit Hours	800.00	820.00	20.00
		12 to 15 Credit Hours	1,960.00	2,010.00	50.00
		16 or More Credit Hours	2,012.00	2,062.00	50.00
<b>UMA</b>	Student Activity Fee	Per Credit Hour, up to 14	\$2.25	\$2.25	-
		15 or More Credit Hours	67.50	67.50	-
	Unified Fee	Per Credit Hour	31.00	31.00	-
	Unified Fee - University College	Per Credit Hour	13.00	13.00	-
<b>UMF</b>	Undergraduate Student Activity Fee	1 to 5 1/2 Credit Hours	\$80.00	\$80.00	-
		6 to 11 1/2 Credit Hours	120.00	120.00	-
		12 or More Credit Hours	160.00	160.00	-
	Student Health & Wellness Fee	4 or More Credit Hours	50.00	50.00	-
	Unified Fee	6 or less Credit Hours	176.00	180.00	4.00
		7 to 11 Credit Hours	350.00	359.00	9.00
		12 or More Credit Hours	688.00	705.00	17.00
<b>UMFK</b>	Student Activity Fee	Per Credit Hour	\$7.50	\$7.50	-
	Unified Fee	Per Credit Hour	30.00	30.00	-
<b>UMM</b>	Student Activity Fee	Per Credit Hour, up to 11	\$11.00	\$11.00	-
		12 or More Credit Hours	240.00	240.00	-
	Green Fee	Flat Fee	0.00	20.00	20.00
	Unified Fee	Flat Fee + Per Credit Hour	610.00	626.00	16.00
<b>UMPI</b>	Student Activity Fee	6 or less Credit Hours	\$85.00	\$85.00	-
		7 or More Credit Hours	170.00	170.00	-
	Unified Fee - Campus	Per Credit Hour	25.00	30.00	5.00
	Unified Fee - Outreach	Per Credit Hour	20.00	20.00	-
<b>USM</b>	Undergraduate Student Activity Fee	1 to 5 Credit Hours	\$38.00	\$80.00	42.00
		6 to 11 Credit Hours	74.00	120.00	46.00
		12 or More Credit Hours	110.00	160.00	50.00
	Law Student Activity Fee	6 or More Credit Hours	100.00	100.00	-
	Unified Fee	Per Credit Hour	30.00	31.00	1.00

<sup>1</sup> Annual unless listed as per credit hour.

## UNIVERSITY OF MAINE SYSTEM

**ANNUAL MANDATORY FEES**

		FY16	FY17	FY18	FY19	FY20	FY20 Increases	
							\$	%
<b><u>Undergraduate</u></b>								
UM	Communications	\$30	\$30	\$30	\$30	\$30		
	Recreation Center Fee	252	270	270	284	292		
	Unified Fee	1,868	1,868	1,916	1,960	2,010		
	Student Activity	90	90	106	106	106		
	<b>Total</b>	<b>\$2,240</b>	<b>\$2,258</b>	<b>\$2,322</b>	<b>\$2,380</b>	<b>\$2,438</b>	<b>58</b>	<b>2.4</b>
UMA	Unified Fee	\$870	\$870	\$900	\$930	\$930		
	Student Activity	68	68	68	68	68		
	<b>Total</b>	<b>\$938</b>	<b>\$938</b>	<b>\$968</b>	<b>\$998</b>	<b>\$998</b>	<b>-</b>	<b>-</b>
UMF	Student Health & Fitness Fee	\$50	\$50	\$50	\$50	\$50		
	Unified Fee	655	655	672	688	705		
	Student Activity	160	160	160	160	160		
	<b>Total</b>	<b>\$865</b>	<b>\$865</b>	<b>\$882</b>	<b>\$898</b>	<b>\$915</b>	<b>17</b>	<b>1.9</b>
UMFK	Unified Fee	\$750	\$750	\$900	\$900	\$900		
	Student Activity	225	225	225	225	225		
	<b>Total</b>	<b>\$975</b>	<b>\$975</b>	<b>\$1,125</b>	<b>\$1,125</b>	<b>\$1,125</b>	<b>-</b>	<b>-</b>
UMM	Unified Fee	\$580	\$580	\$596	\$610	\$626		
	Green Fee	0	0	0	0	20		
	Student Activity	240	240	240	240	240		
	<b>Total</b>	<b>\$820</b>	<b>\$820</b>	<b>\$836</b>	<b>\$850</b>	<b>\$886</b>	<b>36</b>	<b>4.2</b>
UMPI	Unified Fee	\$540	\$540	\$750	\$750	\$900		
	Student Activity	160	160	170	170	170		
	<b>Total</b>	<b>\$700</b>	<b>\$700</b>	<b>\$920</b>	<b>\$920</b>	<b>\$1,070</b>	<b>150</b>	<b>16.3</b>
USM	Unified Fee	\$840	\$840	\$870	\$900	\$930		
	Student Activity	110	110	110	110	160		
	<b>Total</b>	<b>\$950</b>	<b>\$950</b>	<b>\$980</b>	<b>\$1,010</b>	<b>\$1,090</b>	<b>80</b>	<b>7.9</b>
<b>Average</b>		<b>\$1,070</b>	<b>\$1,072</b>	<b>\$1,148</b>	<b>\$1,169</b>	<b>\$1,217</b>	<b>48</b>	<b>4.1</b>
<b><u>Graduate</u></b>								
UM	Communications	\$30	\$30	\$30	\$30	\$30		
	Recreation Center Fee	252	270	270	284	292		
	Unified Fee	762	762	782	800	820		
	Student Activity	80	80	80	90	120		
	<b>Total</b>	<b>\$1,124</b>	<b>\$1,142</b>	<b>\$1,162</b>	<b>\$1,204</b>	<b>\$1,262</b>	<b>58</b>	<b>4.8</b>
UMF	Unified Fee	\$333	\$333	\$342	\$350	\$359	9	2.6
USM	Unified Fee	\$504	\$504	\$522	\$540	\$558	18	3.3
<b>Average</b>		<b>\$654</b>	<b>\$660</b>	<b>\$675</b>	<b>\$698</b>	<b>\$726</b>	<b>28</b>	<b>4.0</b>
<b><u>Law</u></b>								
USM	Unified Fee	\$840	\$840	\$870	\$900	\$930		
	Student Activity	100	100	100	100	100		
<b>Average</b>		<b>\$940</b>	<b>\$940</b>	<b>\$970</b>	<b>\$1,000</b>	<b>\$1,030</b>	<b>30</b>	<b>3.0</b>

NOTE: Based on 15 credit hours per semester for two semesters for undergraduate and law students (except UMF based on 16 credit hours per semester beginning in FY07 & UMFK based on "Block" rate for 12-18 credit hours per semester in FY13 - FY17) and 9 credit hours per semester for two semesters for graduate students.

**UNIVERSITY OF MAINE SYSTEM**  
**ANNUAL TUITION AND MANDATORY FEES**

<b>UNDERGRADUATE</b>		<b>FY19</b>	<b>FY20</b>	<b>FY20 Increases</b>	
<b><u>In-State</u></b>		<b>Rate</b>	<b>Rate</b>	<b>\$</b>	<b>%</b>
UM		\$11,170	\$11,438	268	2.4
UMA		7,988	8,168	180	2.3
UMF		9,666	9,907	241	2.5
UMFK		8,115	8,295	180	2.2
UMM		7,840	8,056	216	2.8
UMPI		7,910	8,240	330	4.2
USM		9,140	9,520	380	4.2
<b>Average</b>		<b>8,833</b>	<b>9,089</b>	<b>256</b>	<b>2.9</b>
<b><u>Out-of-State</u></b>					
UM		\$30,970	\$31,748	778	2.5
UMA		17,918	18,338	420	2.3
UMF		19,778	20,755	977	4.9
UMFK		12,315	12,585	270	2.2
UMM		15,100	15,136	36	0.2
UMPI		12,110	12,530	420	3.5
USM		22,400	23,260	860	3.8
<b>Average</b>		<b>18,656</b>	<b>19,193</b>	<b>537</b>	<b>2.9</b>
<b><u>NEBHE</u></b>					
UM		\$16,450	\$17,288	838	5.1
UMA		12,188	12,458	270	2.2
UMF		14,946	15,763	817	5.5
UMFK		12,315	12,585	270	2.2
UMM		12,040	12,346	306	2.5
UMPI		12,110	12,530	420	3.5
USM		14,030	15,010	980	7.0
<b>Average</b>		<b>13,440</b>	<b>13,997</b>	<b>557</b>	<b>4.1</b>
<b><u>Canadian</u></b>					
UM		\$16,450	\$17,288	838	5.1
UMA		12,188	12,458	270	2.2
UMF		14,946	15,763	817	5.5
UMFK		12,315	12,585	270	2.2
UMM		12,040	12,346	306	2.5
UMPI		12,110	12,530	420	3.5
USM		14,030	15,010	980	7.0
<b>Average</b>		<b>13,440</b>	<b>13,997</b>	<b>557</b>	<b>4.1</b>

**UNIVERSITY OF MAINE SYSTEM**  
**ANNUAL TUITION AND MANDATORY FEES**

<b>GRADUATE</b>		<b>FY19</b>	<b>FY20</b>	<b>FY20 Increases</b>	
<b><u>In-State</u></b>		<b><u>Rate</u></b>	<b><u>Rate</u></b>	<b><u>\$</u></b>	<b><u>%</u></b>
	UM	\$9,106	\$9,362	256	2.8
	UMF	7,676	7,937	261	3.4
	USM	7,866	8,136	270	3.4
	<b>Average</b>	<b>8,216</b>	<b>8,478</b>	<b>262</b>	<b>3.2</b>
<b><u>Out-of-State</u></b>					
	UM	\$26,944	\$27,650	706	2.6
	UMF	11,060	11,609	549	5.0
	USM	20,340	21,096	756	3.7
	<b>Average</b>	<b>19,448</b>	<b>20,118</b>	<b>670</b>	<b>3.4</b>
<b><u>NEBHE</u></b>					
	UM	\$13,840	\$14,636	796	5.8
	USM	12,258	13,068	810	6.6
	<b>Average</b>	<b>13,049</b>	<b>13,852</b>	<b>803</b>	<b>6.2</b>
<b><u>Canadian</u></b>					
	UM	\$13,840	\$14,636	796	5.8
	USM	12,258	13,068	810	6.6
	<b>Average</b>	<b>13,049</b>	<b>13,852</b>	<b>803</b>	<b>6.2</b>
<b>LAW</b>					
	<b>In-State</b>	\$23,290	\$24,220	930	4.0
	<b>Out-of-State</b>	34,360	35,710	1,350	3.9
	<b>NEBHE/Canadian</b>	31,420	32,680	1,260	4.0

**UNIVERSITY OF MAINE SYSTEM**  
**ANNUAL ROOM & BOARD CHARGES<sup>1</sup>**

	<b>ROOM CHARGES</b>					<b>FY20 Increases</b>	
	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>	<b>FY19</b>	<b>FY20</b>	<b>\$</b>	<b>%</b>
UM	\$5,004	\$5,154	\$5,270	\$5,396	\$5,518	122	2.3
UMF	4,750	4,892	5,038	5,280	5,356	76	1.4
UMFK	4,250	4,250	4,250	4,250	4,460	210	4.9
UMM	4,326	4,326	4,326	4,460	4,600	140	3.1
UMPI	4,488	4,588 <sup>2</sup>	4,708	4,850	4,850	-	-
USM	4,900	5,000	5,000	4,000 <sup>3</sup>	4,160	160	4.0
<b>Average</b>	<b>4,620</b>	<b>4,702 <sup>2</sup></b>	<b>4,765</b>	<b>4,706</b>	<b>4,824</b>	<b>118</b>	<b>2.5</b>
UMA	\$9,050						
	<b>BOARD CHARGES</b>						
	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>	<b>FY19</b>	<b>FY20</b>		
UM	\$4,571	\$4,710	\$4,875	\$5,022	\$5,148	126	2.5
UMF	4,220	4,220	4,296	4,446	4,546	100	2.2
UMFK	3,660	3,660	3,660	3,870	3,900	30	0.8
UMM	4,160	4,160	4,160	4,335	4,580	245	5.7
UMPI	3,356 <sup>2</sup>	3,356	3,556 <sup>2</sup>	3,556	3,646	90	2.5
USM	4,500	4,200	4,200	4,450	4,625	175	3.9
<b>Average</b>	<b>4,078 <sup>2</sup></b>	<b>4,051</b>	<b>4,125</b>	<b>4,280</b>	<b>4,408</b>	<b>128</b>	<b>3.0</b>
	<b>TOTAL ROOM &amp; BOARD CHARGES</b>						
	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>	<b>FY19</b>	<b>FY20</b>		
UM	\$9,575	\$9,864	\$10,145	\$10,418	\$10,666	248	2.4
UMF	8,970	9,112	9,334	9,726	9,902	176	1.8
UMFK	7,910	7,910	7,910	8,120	8,360	240	3.0
UMM	8,486	8,486	8,486	8,795	9,180	385	4.4
UMPI	7,856	7,944	8,264	8,406	8,496	90	1.1
USM	9,400	9,200	9,200	8,450	8,785	335	4.0
<b>Average</b>	<b>8,698</b>	<b>8,753</b>	<b>8,890</b>	<b>8,986</b>	<b>9,232</b>	<b>246</b>	<b>2.7</b>

<sup>1</sup>Rates shown are based on the meal plan and room type with the greatest projected number of students. Several meal plans and room types are available. Beginning in FY20, UMA has limited housing but no dining.

<sup>2</sup>UMPI's FY16 board rate, FY17 room rate and FY18 board rate restated.

<sup>3</sup>USM's FY19 room rate restated to reflect Triples Rate.

**UNIVERSITY OF MAINE SYSTEM  
ANNUAL COMPREHENSIVE STUDENT CHARGES  
(Includes Tuition, Mandatory Fees, Room and Board)**

<b>UNDERGRADUATE</b>		<b>FY19</b>	<b>FY20</b>	<b>FY20 Increases</b>	
<u><b>In-State</b></u>		<b>Rate</b>	<b>Rate</b>	<b>\$</b>	<b>%</b>
UM		\$21,588	\$22,104	516	2.4
UMA		7,988	17,218	9,230	115.5
UMF		19,392	19,809	417	2.2
UMFK		16,235	16,655	420	2.6
UMM		16,635	17,236	601	3.6
UMPI		16,316	16,736	420	2.6
USM		17,590	18,305	715	4.1
<b>Average</b>		<b>17,819</b>	<b>18,321</b>	<b>502</b>	<b>2.8</b>
<b><u>Out-of-State</u></b>					
UM		\$41,388	\$42,414	1,026	2.5
UMA		17,918	27,388	9,470	52.9
UMF		29,504	30,657	1,153	3.9
UMFK		20,435	20,945	510	2.5
UMM		23,895	24,316	421	1.8
UMPI		20,516	21,026	510	2.5
USM		31,850	32,045	195	0.6
<b>Average</b>		<b>27,809</b>	<b>28,425</b>	<b>616</b>	<b>2.2</b>
<b><u>NEBHE</u></b>					
UM		\$26,868	\$27,954	1,086	4.0
UMA		12,188	21,508	9,320	76.5
UMF		24,672	25,665	993	4.0
UMFK		20,435	20,945	510	2.5
UMM		20,835	21,526	691	3.3
UMPI		20,516	21,026	510	2.5
USM		23,480	23,795	315	1.3
<b>Average</b>		<b>22,593</b>	<b>23,229</b>	<b>636</b>	<b>2.8</b>
<b><u>Canadian</u></b>					
UM		\$26,868	\$27,954	1,086	4.0
UMA		12,188	21,508	9,320	76.5
UMF		24,672	25,665	993	4.0
UMFK		20,435	20,945	510	2.5
UMM		20,835	21,526	691	3.3
UMPI		20,516	21,026	510	2.5
USM		23,480	23,795	315	1.3
<b>Average</b>		<b>22,593</b>	<b>23,229</b>	<b>636</b>	<b>2.8</b>

NOTE: Tuition and Fees based on 15 credit hours per semester for two semesters for undergraduate and law students (except UMF based on 16 credit hours per semester beginning in FY07 & UMFK based on "Block" rates for 12-18 hours per semester in FY13 - FY17) and 9 credit hours per semester for two semesters for graduate students. Room and board rates are based on the meal plan and room type with the greatest projected number of students. Several meal plans and room types are available. Beginning in FY20, UMA has limited housing but no dining.

The majority of UMA Out-of-State Undergraduate students are enrolled in Online programs = \$125% of in-state rate.



**UNIVERSITY OF MAINE SYSTEM**  
**ANNUAL COMPREHENSIVE STUDENT CHARGES**  
**(Includes Tuition, Mandatory Fees, Room and Board)**

<b>GRADUATE</b>		<b>FY19</b>	<b>FY20</b>	<b>FY20 Increases</b>	
<u><b>In-State</b></u>		<b>Rate</b>	<b>Rate</b>	<b>\$</b>	<b>%</b>
UM		\$19,524	\$20,028	504	2.6
UMF		17,402	17,839	437	2.5
USM		17,316	16,921	(395)	(2.3)
<b>Average</b>		<b>18,081</b>	<b>18,262</b>	<b>181</b>	<b>1.0</b>
<b><u>Out-of-State</u></b>					
UM		\$37,362	\$38,316	954	2.6
UMF		20,786	21,511	725	3.5
USM		29,790	29,881	91	0.3
<b>Average</b>		<b>29,313</b>	<b>29,902</b>	<b>589</b>	<b>2.0</b>
<b><u>NEBHE</u></b>					
UM		\$24,258	\$25,302	1,044	4.3
USM		21,708	21,853	145	0.7
<b>Average</b>		<b>22,983</b>	<b>23,578</b>	<b>595</b>	<b>2.6</b>
<b><u>Canadian</u></b>					
UM		\$24,258	\$25,302	1,044	4.3
USM		21,708	21,853	145	0.7
<b>Average</b>		<b>22,983</b>	<b>23,578</b>	<b>595</b>	<b>2.6</b>
<b>LAW</b>					
<b>In-State</b>		\$32,740	\$33,005	265	0.8
<b>Out-of-State</b>		43,810	44,495	685	1.6
<b>NEBHE/Canadian</b>		40,870	41,465	595	1.5

NOTE: Tuition and Fees based on 15 credit hours per semester for two semesters for undergraduate and law students (except UMF based on 16 credit hours per semester beginning in FY07 & UMF based on "Block" rates for 12-18 hours per semester in FY13 - FY17) and 9 credit hours per semester for two semesters for graduate students. Room and board rates are based on the meal plan and room type with the greatest projected number of students. Several meal plans and room types are available. Beginning in FY20, UMA has limited housing but no dining.

The majority of UMA Out-of-State Undergraduate students are enrolled in Online programs = \$125% of in-state rate.

## UNIVERSITY OF MAINE SYSTEM STUDENT FEES

### OVERVIEW

The procedures for establishing student fees throughout the University of Maine System are contained in the Board of Trustees Policy Manual in Section 703 and 704 as follows:

The **BOARD OF TRUSTEES** will establish those fees that are analogous to tuition, i.e., those that must be paid by all students as a condition of attendance. In addition, changes to the amount of the Student Activity Fee shall be requested by the recognized student governing body at each University and authorized after (a) a referendum approved by the student body, (b) approval of the President and, (c) approval of the Chancellor for presentation and approval by the Board of Trustees. Board approved fees include the Student Activity Fee, the Communications Fee, the Unified Fee, the Recreation Fee and the Student Health & Wellness Fee.

The **CHANCELLOR** will establish those fees impacting services and operations within the System. These include maximum levels for financial service fees (non-negotiable check fees) and fees principally affecting prospective students, such as application fees.

The **UNIVERSITY PRESIDENTS** are responsible to the maximum extent possible for establishing most university-specific fees, which include:

- all course fees
- all deposits
- all fees for optional university services and activities

Fee changes planned for the fall semester should ordinarily be adopted no later than May; those to become effective in the spring semester should be adopted by November 15. Universities should establish procedures for timely review of and comment on fee changes. The Chancellor should be informed in advance of the formal adoption of any fee changes.

Adjustments to Student Activity Fees will be considered by the Board at its May meeting in order to allow sufficient time for student governments to conduct spring referendums on any changes recommended to the fees.

**UNIVERSITY OF MAINE SYSTEM  
NARRATIVE DESCRIPTION OF EACH MANDATORY FEE**

<u>Name</u>	<u>University Charging Fee</u>
<u>Student Activity Fee</u> A student approved mandatory fee that is administered by the students for educational, cultural, social, and recreational purposes. Changes to this fee require the approval of the student body, University President, Chancellor, and Board of Trustees.	ALL
<u>Communications Fee</u> A student approved mandatory fee that is administered by the students to support WMEB-FM, the Maine Channel, "The Maine Campus", and ASAP, a media and internet technologies laboratory.	UM
<u>Unified Fee</u> This fee is used to cover fixed costs of providing educational services that may not be directly related to the number of credit hours for which a student is enrolled. This fee supports activities such as student services, the operation of facilities such as student and fitness centers, and student-utilized, instruction-related technologies.	ALL
<u>Recreation Center Fee</u> This fee is assessed to pay for the construction of the Center and provides students with access to the state-of-the-art facility, including a leisure pool and sauna. Many aerobic classes and other programs and services are also provided for no additional fee.	UM
<u>Student Health &amp; Wellness Fee</u> This fee is charged to students registered for 4 or more credit hours of classes held at UMF. It covers all health center office visits, counseling and fees associated with Mainely Outdoors.	UMF
<u>Green Fee</u> A student approved mandatory fee used to re-start the recycling program on campus and to work on sustainable practices (refill stations, led lighting, planting more trees, etc.).	UMM

<p><b>Section 305 Program Inventory</b> Effective: 3/28/79 Last Revised:</p> <p><b>Procedures for Submission of Program Inventory</b> Board of Trustees policy states that the Academic Program Inventory is the definitive list of all academic degree programs offered by the institutions or units of the University of Maine System. An academic program is defined as a course of study identified by a specific degree title and a specific subject matter area with a prescribed set of requirements which a student must complete.</p> <p>The Academic Program Inventory is maintained by the Office of the Vice Chancellor for Academic Affairs. Each summer the institutions are requested to update their portions of the Inventory. The completed document is submitted to the Board of Trustees for the Board's information each September.</p> <p>See: <a href="#">Policy Manual Section 305: Program Inventory</a></p> <p><b>Section 305.1 Academic Program Approval</b> Effective: 1/29/87 Last Revised: 2/25/2010</p> <p><b>Academic Program Approval</b> The approval process requires the following steps, some of which can occur in parallel:</p> <p><b>Part A: Intent to Plan</b></p> <ol style="list-style-type: none"> <li>1. The initiating university will follow all appropriate university processes in preparing the Intent to Plan.</li> <li>2. When approved by the university President, the <a href="#">Intent to Plan</a> will be submitted to the Vice Chancellor for Academic Affairs who will acknowledge receipt of the document.</li> <li>3. The Vice Chancellor will distribute via email the Intent to Plan, along with the names and contact information of four potential reviewers, to the President and the Chief Academic Officer of each university for their information.</li> <li>4. The Intent to Plan will be discussed by the Chief Academic Officers first via email. If a consensus to accept the Intent to Plan can be reached via email, then the Plan is moved to step 5. If no consensus can be reached via email, the proposing CAO will be notified and the Plan may be considered at the next regular CAO business meeting. To provide adequate time for individuals to prepare and distribute written</li> </ol>	<p><b>Section 305 Program Inventory</b> Effective: 3/28/79 Last Revised:</p> <p><b>Procedures for Submission of Program Inventory</b> Board of Trustees policy states that the Academic Program Inventory is the definitive list of <b>all academic programs of study</b> <del>academic degree programs</del> offered by the institutions or units of the University of Maine System. An academic program <b>of study</b> is defined as a prescribed <b>course of study (i.e., course or other academic requirements)</b> <del>that</del> a student must complete <b>within</b> a specific subject matter area. <b>This definition includes academic programs of study</b> identified by a specific degree title, <b>documented on a transcript, and/or described in an undergraduate or graduate catalog.</b> All undergraduate majors, graduate degree programs, advanced certificates of study, concentrations, minors, associate degrees, and credit-bearing certificates are programs of study. Concentrations, minors, associate degrees and credit-bearing certificates, however, are subject to abbreviated review leading to approval and inclusion in the Program Inventory (see Roman numeral II below).</p> <p>The Academic Program Inventory is maintained by the Office of the Vice Chancellor for Academic Affairs. Each summer the institutions are requested to update their portions of the Inventory. The completed document is submitted to the Board of Trustees for the Board's information each September.</p> <p>See: <a href="#">Policy Manual Section 305: Program Inventory</a></p> <p><b>Section 305.1 Academic Program Approval</b> Effective: 1/29/87 Last Revised: 2/25/2010</p> <p><b>Academic Program Development</b> – Regardless of the level of a program (e.g., undergraduate majors, graduate degree program, advanced certificate of study, concentrations, minors, associate degrees, or credit-bearing certificates), academic units are encouraged to continuously explore innovative programming that can serve the needs of the discipline, students and State of Maine. To that end, programs should align to:</p> <ol style="list-style-type: none"> <li>a. the mission and goals of the submitting university(ies);</li> <li>b. need for the program;</li> <li>c. availability of resources for program support;</li> <li>d. appropriate delivery modalities to best provide educational access and service to students.</li> </ol>
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statements in support of or in opposition to the Plan, only Plans submitted 7 days prior will be considered at the next scheduled meeting of the Chief Academic Officers. Items not submitted within the time frame established will not receive consideration until the next CAO meeting.

In review of the Intent to Plan, the CAOs will take into consideration the following:

- a. Appropriateness of the program to the mission and goals of the submitting university;
- b. Need for the program and rationale for any duplication;
- c. Availability of adequate resources to support the program; and
- d. Statewide need and corresponding interest, mode of delivery, and the potential catchment areas from which students would be drawn.

After review of the Intent to Plan, the University of Maine System Chief Academic Officers will decide upon one of four actions:

- a. Acceptance;
- b. Acceptance with qualifications;
- c. Returned with suggestions for revision; or
- d. Rejection with rationale to substantiate decision.

5. The recommendation of the CAOs will be conveyed to the Vice Chancellor who in turn will make his/her recommendation concerning an Intent to Plan to the Chancellor. The minutes of the Chief Academic Officers will be the record of action on an Intent to Plan. If the Intent to Plan is approved by the Chancellor, the Vice Chancellor will notify the Chief Academic Officer of the originating university in writing that the development of a full proposal may proceed, with copies of the action to all other universities. The Board of Trustees will be informed when Intent to Plan Statements have been approved by the Chancellor.

6. Once an Intent to Plan has been approved, a status report must be filed in the Vice Chancellor's Office at the end of a six-month period in order to keep the plan active if a program proposal has not yet been submitted. An approved Intent to Plan which is not followed by the submission of a program proposal within one year from the time of initial acceptance will be automatically voided unless a specific request for an extension of time has been received and approved by the Vice Chancellor for Academic Affairs.

#### **Part B: Program Proposal**

7. Approval of an Intent to Plan is to be followed by the submission of a [Program Proposal](#) by the originating university through the appropriate university process. The development of the Program

#### **I. Approval of Undergraduate Majors, graduate degree programs, and advanced certificates of study**

##### *Step 1: Program Request*

- a. Request submitted to Provost(s) with a written description and rationale for a new program in 250 words or less. Such requests must briefly mention the findings of a market analysis consultation with campus or UMS institutional researchers.
- b. If recommended by the appropriate Provost(s) to whom the request was submitted, the request is provided electronically to the VCAA and CAOC.
- c. Except under extenuating circumstances, formal response from a Provost Office and the VCAA office regarding the CAOC recommendation should occur within two weeks.

##### *Step 2: Submission of Program Proposal.*

Upon approval of a program request from the Provost and the VCAA office, a [Program Proposal](#) must be prepared and evaluated through the originating university's normal curricular process(es). Program proposals must be submitted within six months, after which time the request must be renewed. The Program Proposal must address the following areas:

- a. Program objectives and content
- b. Evidence of program need (to include the detailed findings of the market analysis conducted in consultation with campus or UMS institutional researchers, or other relevant programmatic information)
- c. Program resources and total financial considerations
- d. Program evaluation

##### *Step 3: University of Maine System (UMS) Evaluation.*

After completion of the campus program evaluation process, University of Maine System evaluation is initiated by submission of the proposal by the university President to the Vice Chancellor for Academic Affairs who will acknowledge receipt of the document and distribute the proposal electronically to members of the Chief Academic Officers Council (CAOC).

The CAOC will collectively evaluate and discuss the proposed program at the first available CAOC meeting. In some instances, and

<p>Proposal in most instances will be developed in parallel with the Intent to Plan in order to speed the approval process, and it is urged that the university administration share an early draft of the program proposal with other Chief Academic Officers and the Vice Chancellor for Academic Affairs. The Program Proposal must address the following areas:</p> <ul style="list-style-type: none"> <li>a. Program objectives and content</li> <li>b. Evidence of program need</li> <li>c. Program resources and total financial considerations</li> <li>d. Program evaluation</li> </ul> <p>When approved by the university President, the program proposal will be submitted electronically to the Vice Chancellor for Academic Affairs who will acknowledge receipt of the document and distribute via e-mail copies to the Chief Academic Officers.</p> <p>8. The Vice Chancellor will select, contact, and compensate two external reviewers from those suggested to provide an independent assessment of the proposal. The external reviewers will report in writing their findings and recommendations to the Vice Chancellor for Academic Affairs, who in turn will share these with the originating university for proposal revision, as deemed necessary.</p> <p>Following revisions, the completed proposal, with the approval of the university President, will be submitted to the Vice Chancellor for Academic Affairs 30 days before the Board meeting at which the proposal is to be considered. The Vice Chancellor for Academic Affairs will distribute it to the Chief Academic Officers for information only.</p> <p>The Vice Chancellor has three action options:</p> <ul style="list-style-type: none"> <li>a. forward the proposal with a recommendation for approval to the Chancellor;</li> <li>b. return the proposal to the originating university with specific critiques and suggestions for revision; or</li> <li>c. return the proposal to the initiating university with specific written rationale for its rejection.</li> </ul> <p>9. The Chancellor will recommend program proposals to the Board of Trustees for its review and approval. Notice of final approval of program proposals will be transmitted to all universities.</p> <p>Temporary Programs</p> <p>To meet urgently needed workforce development demand in a university's immediate catchment area, the Vice Chancellor of</p>	<p>on the basis of CAOC input, the VCAA may seek external reviews of a program proposal (e.g., instances in which major questions of program relevance, content, or demand have been raised in the CAOC). After CAOC review, the VCAA has five action options:</p> <ul style="list-style-type: none"> <li>a. forward the proposal with a recommendation for approval to the Chancellor;</li> <li>b. refer the discussion of the program proposal to the President's Council;</li> <li>c. seek external review from disciplinary experts;</li> <li>d. return the proposal to the originating university with specific critiques and suggestions for revision; or</li> <li>e. return the proposal to the initiating university with specific written rationale for its rejection.</li> </ul> <p>Should revisions be required by the CAOC or VCAA, the originating university must submit a revised proposal to the Vice Chancellor for Academic Affairs at least 30 days before the UMS Board of Trustees meeting at which the proposal is to be considered. Revisions will be distributed by the VCAA to the CAOC for information only.</p> <p><i>Step 4: Chancellor and BOT Action, Notification, and Program Inventory</i></p> <p>The Chancellor will recommend program proposals to the Board of Trustees for its review and approval. Notice of final approval of program proposals will be transmitted to all universities. The originating university is notified of Board of Trustees approval, and has 12 months to implement the program, i.e., admit students. After formal notice of implementation from the originating university's provost, the new program is added to the UMS Program Inventory through the VCAA's office.</p> <p><b>II. Approval of Concentrations, Minors, associate Degrees and Credit-bearing Certificates,</b></p> <p><i>Step 1: Program development.</i></p>
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<p>Academic Affairs may make exceptions to the above policy. Universities may seek permission from the VCAA to offer credit bearing certificates and associate degrees for a specified and limited time period.</p> <ol style="list-style-type: none"> <li>1. Proposal is sent to VCAA electronically</li> <li>2. VCAA shares proposal electronically with all CAOs</li> <li>3. Consultation between the CAOs and VCAA is held to: <ol style="list-style-type: none"> <li>a. Review soundness of the proposal</li> <li>b. Determine if collaboration is needed, desired, and/or valuable to the success of the plan</li> <li>c. Facilitate any such collaboration(s) as deemed needed</li> </ol> </li> <li>4. Chancellor signs-off on the proposal on behalf of the BOT</li> </ol>	<p>A program concentration, minor, associate degree, or credit-bearing certificate is developed in accordance with the originating university processes and procedures for evaluation.</p> <p><i>Step 2: CAOC Consideration</i></p> <p>An approved program concentration, minor, associate degree, or credit-bearing certificates is submitted by the originating university(ies) Provost(s) to the VCAA office for CAOC consideration at the next regularly scheduled CAOC meeting (typically within two weeks).</p> <p><i>Step 3: Final notification, approval and Program Inventory</i></p> <p>On the basis of input from the CAOC, the VCAA notifies the originating university of the CAOC's recommendation and the VCAA office's decision. In the event of disagreement among CAOC members, the VCAA shall refer the program request to the President's Council. When approved, a new program concentration, minor, associate degree, or credit-bearing certificate is added to the UMS Program Inventory through the VCAA's office.</p> <p><b>III. Temporary Program Approval</b></p> <p>To meet urgently needed workforce development demand in a university's immediate catchment area, the VCAA may make exceptions to the above policy, with notification to the Chancellor and the Board of Trustees. <del>Universities may seek permission from the VCAA to offer credit bearing certificates and associate degrees for a specified and limited time period.</del></p> <ol style="list-style-type: none"> <li><del>1. Proposal is sent to VCAA electronically</del></li> <li><del>2. VCAA shares proposal electronically with all CAOs</del></li> <li><del>3. Consultation between the CAOs and VCAA is held to:</del> <ol style="list-style-type: none"> <li><del>a. Review soundness of the proposal</del></li> <li><del>b. Determine if collaboration is needed, desired, and/or valuable to the success of the plan</del></li> <li><del>c. Facilitate any such collaboration(s) as deemed needed</del></li> </ol> </li> <li><del>4. Chancellor signs-off on the proposal on behalf of the BOT</del></li> </ol>
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## AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Greenhouse Construction, UMPI
2. **INITIATED BY:** Karl W. Turner, Chair
3. **BOARD INFORMATION:** **BOARD ACTION:** X
4. **OUTCOME:** **BOARD POLICY:**  
 Support Maine through research and economic development  
 Increase Enrollment  
 Improve Student success and completion  
 701 Financial Affairs –Operating & Capital Budgets
5. **BACKGROUND:**  

The University of Maine System acting through the University of Maine at Presque Isle requests authorization to expend up to a maximum of \$850,000 to construct a new teaching and research greenhouse on the main campus in Presque Isle. Funding for this will be covered primarily through private gifts, grants and campus resources, \$575,000 of which already has been secured from various sources.

This request is pursuant to Board of Trustees Policy 701 Financial Affairs, which requires projects with a total cost of more than \$500,000 to be considered by the Board of Trustees or its Finance, Facilities and Technology Committee. In this case, the request is within the purview of the Finance, Facilities and Technology Committee.

The project involves the construction of an approximately 2,400 square foot 4-season research grade greenhouse. In August of 2016, the Board approved the additional square footage, (agenda item attached for reference). The matter before Trustees today is the estimated cost.

At that time the project was approved, the University believed the cost would be no more than \$220,000. In fact, the cost of the greenhouse structure itself is currently estimated at approximately \$200,000. However, additional project costs, including design, siting, utilities and other project costs – based on actual bids received by the University in May of 2018, based on the Trustees prior approval, have required the University to update its estimated cost to the current amount.

The project has not proceeded, pending this updated consideration by Trustees. Further,

8/10/2018



the University intends to rebid the project in an effort to lower costs and to proceed with construction in 2019.

As described in the August 2016 Finance, Facilities, Technology Committee agenda, the construction of the greenhouse is being requested to support growth in the Sustainable Agriculture program and to attract new students who are interested in agriculture. The agricultural program, and specifically the greenhouse, is consistent with the geographic location of the University and the role of agriculture in the region and its economy. The greenhouse will be used in formal courses, professional development, grower demonstrations, and undergraduate and faculty research to support a variety of local agriculture activities. These will include support for emerging needs in Aroostook County's traditional crops (potatoes and their rotation crops), as well as new crops and agricultural activity to expand economic opportunity.

The actual facility will include two research labs, a teaching classroom, and a faculty office. It will have full-spectrum high-intensity discharge (HID) lamps, an advanced climate control system and sensor capacity, along with full-scale watering and ventilation systems.

Additionally, to offset the square footage increase, Norton Museum (384 sq. ft.) has been demolished, the Gauvin property (1,276 sq. ft.) has been sold, and the three Skyway duplexes (2,066 sq. ft. per unit) are in the final stages of being transferred, thus removing them from UMPI's facility inventory.

To date, nearly \$575,000 has been secured from external sources, including the Maine Economic Improvement Fund (MEIF), with additional amounts slated to be finalized in the coming weeks and months. Construction of the greenhouse will not commence until sufficient external resources have been raised to cover the entire cost of the construction. Pending this approval, the project will be re-bid with intent to begin construction during the spring or summer of 2019.

#### **6. TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees, acting through the Finance/Facilities/Technology Committee authorizes the University of Maine at Presque Isle to expend up to \$850,000 in grant, private gifts and campus funds for the construction of a new teaching greenhouse.



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### AGENDA ITEM SUMMARY

1. **NAME OF ITEM:** Space Reduction Update, UMS

2. **INITIATED BY:** Karl W. Turner, Chair

3. **BOARD INFORMATION:** X

**BOARD ACTION:**

4. **OUTCOME:**

**BOARD POLICY:**

5. **BACKGROUND:**

This is an update regarding the effort to constrain facility growth and reduce the space occupied by the University of Maine System with the ultimate goals of better positioning the UMS to recruit and retain talented students, staff and faculty and to provide affordable, quality higher education.

Since March 2015, Trustees have not permitted any increases in University space without explicit Trustee approval in order to constrain costs, improve the condition of University facilities and increase the use of existing facilities in pursuit of those ultimate goals. Trustees have generally required off-setting reductions when approving such increases, though there have been exceptions when increases were granted without such off-sets.

The occupied square footage of the UMS since 2010, including the period since the Trustees' directive, has declined by approximately 250,000 gross square feet according to assessments by Sightlines and separately by the University.

Sightlines assessment of the reduction is contained in its annual report to the Trustees being delivered under a separate cover at this meeting. The University's accounting, which is in sync with but varies slightly from Sightlines due to slightly different methodology, is attached to this agenda information sheet. It contains important details such as information regarding facilities which are vacated but not yet removed.

At the same time, the Trustees correspondingly encouraged the University to attempt to achieve more intense use of its facilities as measured by a Sightlines facilities metric called density. In particular, the Trustees endorsed a goal of trying to attain 340 users per 100,000 gross square feet of space by FY2022 and ultimately a density of 400 users per 100,000 gross square feet of space thereafter.

Trustees took this and related action in response to data showing that the University, relative to its own history and to higher education benchmarks, occupied too much space with respect to the size of its population of students, staff and faculty.

The density metric, which decreased from 2006 to 2016 (the goal is to increase it), has increased slightly and has temporarily stabilized at 326 users per 100,000 gross square feet. This metric, which is influenced not only by the constraints on space but also by changes in enrollment, is reported in more detail in the Sightlines report.

To continue this facility effort, Trustees approved in principle in January 2018 an initiative to remove space by demolition and to help fund as much as 300,000 gross square feet (GSF) of vacant, under-utilized or poorer condition space and to eliminate the backlog of capital investments and operating costs associated with that space at campuses statewide.

In response and at the further invitation of the System-wide Capital Budget Advisory team, campuses have proposed 27 demolition projects totaling approximately 181,000 gross square feet of space.

These proposals were incentivized by and contingent on funding being available from a central pool to support these projects. Some but not all of that space is accounted for in the existing assessments. In all, the funding would cement the gains being reported here and see the UMS reduce its square footage by an estimated further 88,000 gross square feet to a new total of approximately 340,000 square feet of reduced space since 2010. This funding is expected to be a point of consideration for Trustees as part of the FY2020 budget approval process.

FY	Net square feet being reduced	Gross removed or to be removed	Gross Added
FY10	25,300	25,300	0
FY11	11,435	11,435	0
FY12	21,371	24,376	3,005
FY13	18,997	57,312	38,315
FY14	-4,676	8,299	12,975
FY15	74,516	103,551	29,035
FY16	93,556	106,299	12,743
FY17	51,864	57,498	5,634
FY18	-4,757	2,805	7,562
FY19	-32,400	0	32,400
<b>Total space being reduced FY10-FY19</b>	<b>255,206</b>	<b>-396,875</b>	<b>141,669 *</b>

Campus	Net square feet being reduced	Gross removed or to be removed	Gross Added
UM	-21,153	60,605	81,758
UMF	6,103	11,803	5,700
UMA	61,755	64,760	3,005
USM	172,266	200,720	28,454 **
UMM	27,939	27,939	0
UMFK	-17,918	2,434	20,352
UMPI	26,214	28,614	2,400
<b>Total space being reduced FY10-FY19</b>	<b>255,206</b>	<b>396,875</b>	<b>141,669</b>

\* This data reflects some but not all planned removal or additions of space. Notably, a special group of 181,000 in proposed reductions are pending funding per the special Trustee space reduction initiative approved in January 2018. Of that amount, approximately 93,000 is reflected in this data, but 88,000 is not. Also, notably, the EEDC project and other potential new construction will off-set these reductions unless further reductions are pursued. Lastly, in some cases, the space being reduced is planned or approved for removal but is not yet removed or fully completed as noted in the detailed data.

\*\*USM data and consequently total data includes approximately 25,000 square feet net reduction in leased space at USM. All other data is owned space only.



Vice Chancellor for  
Academic Affairs  
15 Estabrooke Drive  
Orono, ME 04469

Tel: 207-581-5842  
Fax: 207-581-9212  
www.maine.edu

Date: April 19, 2019

To: Dr. James Page, Chancellor  
University of Maine System (UMS)

From: *R. Neely*  
Robert Neely, VCAA

Regarding: Master of Science in Education (M.S.Ed.) in Special Education

The University of Maine

University of Maine  
at Augusta

University of Maine  
at Farmington

University of Maine  
at Fort Kent

University of Maine  
at Machias

University of Maine  
at Presque Isle

University of  
Southern Maine

Please find attached a program proposal from the University of Maine at Farmington (UMF) to offer a Master of Science in Education (M.S.Ed.) in Special Education. The attached material includes recent letters of support from Interim President Brown and Interim Provost Yardley, as well as the full proposal. As described in the proposed program, a shortage of Special Education teachers exists in Maine, and was confirmed by a UMS-level analysis of workforce demand. Further, the proposed program includes an accelerated 4+1 track for students to earn both their bachelor's and master's degrees in Special Education at UMF, as well as adding a new dimension to the graduate programming at UMF. In summary, building on the strong foundation of education and expertise in Special Education at UMF, the proposed program meets an important state need, fits the mission of UMF, and serves as a pathway to attract new students to UMF.

The proposal was reviewed at all appropriate faculty and administrative levels at UMF, and was endorsed by the Chief Academic Officers Council at their 14 April, 2019 meeting. Given the upcoming recommendations for changes to BOT policy from my office to streamline program approval processes, I am requesting for an exception to policy to move this program forward without seeking external reviews. This exception is predicated on the workforce analysis conducted through the UMS Burning Glass license documenting the demand for the proposed program. If you agree with waiver of external review, I am happy to recommend this program proposal for your approval.

I approve	I do not approve for the reasons listed below	Additional information needed for a decision	Action
			Approval of UMF master's degree in Special Education

*Page*

Chancellor James H. Page

*5.1.19*

Date

Cc: Eric Brown, UMF  
Kathy Yardley, UMF



April 3, 2019

Office of the Vice President for Academic Affairs and Provost  
The University of Maine at Farmington  
Merrill Hall  
224 Main Street  
Farmington, Maine 04938

Dr. Eric Brown  
Interim President  
University of Maine at Farmington  
224 Main Street  
Farmington, Maine 04938

Dear President Brown:

I am pleased to share this program proposal for a Masters in Special Education. The proposal was developed by the faculty in Special Education and is intended to achieve the following objectives:

- Increase the number of certified special education teachers and administrators in the state of Maine and beyond to address persistent shortages of qualified personnel
- Attract new students to UMF through a 4+1 pathway that leads to a Masters in Special Education
- Provide a clear pathway to a Masters in Special Education for graduate students participating in UMF's SPARC (Special Education Alternative Route to Certification) program

There is tremendous need for Special Education teachers and administrators as supported by data from Burning Glass. There were over 268 job postings in special education over the last twelve months, with an expectation that demand will grow over the next eight years.

UMF has followed its procedures for approving new academic programs. The Intent to Plan and program approval were approved by the Division, Graduate Council, Faculty Senate and President's Council, with final approval of the program proposal granted by President's Council on April 3, 2019.

Throughout the process, I have worked closely with the Special Education faculty and leaders of Graduate Education. They have thoughtfully considered program goals, curriculum, delivery mode, and resources necessary to support the program. I am confident that this program is of the highest quality, and it has my full support.

Sincerely,

A handwritten signature in cursive script that reads 'Katherine Yardley'.

Katherine Yardley  
Acting Vice President for Academic Affairs and Provost



Office of the President  
Merrill Hall  
224 Main Street  
Farmington, Maine 04938

April 25, 2019

Robert Neely, Vice Chancellor of Academic Affairs  
University of Maine System  
15 Estabrooke Drive  
Orono, ME 04469

Dear Vice Chancellor Neely:

I am pleased to support enthusiastically the University of Maine at Farmington's program proposal for a Masters in Special Education. The new program aligns perfectly with UMF's mission and strengths in education, including graduate education, addresses a statewide shortage in certified special education instructors and administrators, further animates the undergraduate programs in Special Education by creating a streamlined 4 + 1 pathway, and is responsive to data demonstrating workforce demand.

The program proposal has passed through all necessary approval steps on our campus, including unanimous endorsement from President's Council earlier this month. I request that it now be moved forward for System approval.

Sincerely,

A handwritten signature in black ink, appearing to read "EC" followed by a stylized flourish.

Eric Brown  
Interim President



**Proposal for a Master of Science in Education (M.S.Ed.) in Special Education  
at the University of Maine Farmington**

**I. Full program title.**

**Master of Science in Education (M.S.Ed.) in Special Education**

**II. Program objectives.**

**A. Narrative description of program rationale.**

The purpose of the master's degree in special education at the University of Maine at Farmington (UMF) is to provide students with multiple, accessible pathways to earn a master's degree in special education and, if desired, special education teacher certification (K-8 or 7-12) with various high-need specialization options provided by expert faculty at UMF and at partner campuses across the University of Maine System. A blended face-to-face and online delivery model will ensure we meet the needs of various student populations (pre-service teachers, alternative route to certification students) and local schools by addressing the special education teacher shortage in Western Maine, Maine, and New England.

This proposal leverages long-standing special education options at UMF. First, UMF has a storied special education program at the undergraduate level that has existed for almost 60 years (1961). Additionally, UMF has offered graduate education courses in special education since 2006 through the SPARC (Special Education Alternative Route to Certification) program. Currently, the SPARC program is at capacity, offering courses throughout the calendar year and serving close to 100 students per semester. This new degree program provides an accelerated pathway to certification for two groups of students; those completing an undergraduate minor in special education and current UMF SPARC students taking graduate special education courses at UMF. It also provides an accelerated pathway to a master's degree for undergraduate special education majors at UMF. Thus, this program is intended to attract new people to the field that are not already seeking a master's degree or certification in special education through existing programs.

Undergraduate students will participate in a "4+1" where they can obtain a bachelor's degree with a major or minor in special education and a master's degree in special education in five years. Specifically, during summer sessions, students will complete six credits of graduate coursework between their junior and senior year, and six credits following their senior year before completing their graduate work in the fifth year. Graduate students who have completed nine graduate special education credits through SPARC will also be eligible to apply to the program.

It is anticipated that this program will support attracting undergraduate majors to UMF due to the prospect of also obtaining a master's degree in five years. The program is also designed to provide students with the unique opportunity to specialize in areas of need within the special education field (e.g., assistive technology, inclusive special education, low incidence disabilities, special education leadership) through coursework at UMF or through collaborative options at other UMS institutions (see below). This offering is intended to provide a unique program to attract additional people into the field of special education. By focusing on existing UMF students as the primary audience (UMF undergraduate special education majors and minors, SPARC students) we will attract new professionals into the field and also further



develop the expertise of special educators. In particular, this program is partially intended to support undergraduate enrollment at UMF given the prospect of earning a master's degree in five years. Indeed, a hallmark of this program will be to provide students with a seamless advising experience that supports program continuity and student engagement and retention by assigning an advisor that undergraduate students will have for all 5 years of their program. This aspect of the program capitalizes on UMF's strong advising program that focuses on holistic, close student-advisor relationships between a full-time faculty member and student.

**B. General program goals (limit to 3-5 major items maximum).**

**1. *Develop educators who can support students with disabilities in inclusive education settings achieve high standards so they can be ready for postsecondary education or the workforce.***

Students with disabilities are primarily educated in inclusive settings with non-disabled peers. Indeed, 85.62% of Maine's students with disabilities spend at least 40% of their school day in general education classrooms with 56.58% spending at least 80% of their school day in general education classrooms. At the same time, all students in public schools are being expected to meet high academic standards so they are prepared for higher education or the workforce. However, there remains an urgent need for effective inclusive education that provides accessible, yet rigorous, curriculum to all students. For example, only 23% of fourth grade students with disabilities in Maine schools score "basic" or above on the National Assessment of Educational Progress (NAEP) and only 43% of these students score "Basic" or above on the NAEP mathematics assessment. Thus, a unique feature of this program will be its explicit focus on preparing educators to facilitate inclusive programming for students with disabilities.

**2. *Infuse Maine's workforce with an adequate supply of special education teachers and leaders***

As stated elsewhere in this document, Maine has a significant shortage of qualified special education teachers and districts struggle to hire enough professionals to fill these positions. Over the past two decades, Maine regularly reports to the U.S. Department of Education that it has a shortage of special education teachers. Indeed, currently, 49 of 50 States report critical shortages in special education. In New England alone, there are 1,800 special education teaching positions either open or staffed by unqualified personnel. This struggle is particularly evident in rural, low socioeconomic status school districts. With this degree program, there is the potential to support the teacher shortage in dozens of Maine schools in a short period of time.

**3. *Prepare leaders who have the vision, expertise, and skills to transform learning environments to support the success of students with disabilities***

A focus of this program is to ensure that students leave the program with expertise in important content knowledge, pedagogy, and intervention methods (high-leverage practices). Many programs in special education provide for this opportunity. However, a unique feature is the explicit focus on developing leaders (broadly defined) who can implement such practices in inclusive settings.

**C. Specific student outcomes or behavioral objectives (limit to 5-8 items, written for public accountability)**

Objectives were developed based on standards set forth by experts in the field (Council for Exceptional Children) and are intended to ensure that graduates have the knowledge, skills, and dispositions to effectively educate and support students with disabilities. Specifically, graduates will:

1. use foundational knowledge and professional ethical principles to inform inclusive, and culturally and linguistically responsive special education practice
2. engage in lifelong learning and assume leadership responsibilities to advance the profession and promote the success of colleagues, and individuals with exceptionalities.
3. collaborate with stakeholders to create and improve inclusive programs, services, and outcomes for individuals with exceptionalities and their families.
4. use their knowledge of general and specialized curricula to create and improve inclusive programs, supports, and services at classroom, school, community, and system levels.
5. conduct, evaluate, and use inquiry to guide professional practice.
6. set goals and meet high professional expectations, advocate for effective and inclusive policies and evidence-based practices, and create positive and inclusive work environments.

**III. Evidence of program need.**

**A. Existence of educational, economic and social needs to include citations or specific authorities or studies consulted.**

This program is an important addition to meet the statewide shortage of special education teachers, particularly in high poverty areas. National data from the U.S. Department of Education indicate that about 50% of all school districts and 90% of high poverty districts have teacher shortages. Furthermore, 49 of 50 States (including Maine) report special education teacher shortages. A recent report to University of Maine System Chief Academic Officers indicated that there are 1,800 special educator job openings in New England. In 2016 the CEEDAR Center, a federally funded national center dedicated to improving the preparation of special educators, released a report titled *Teacher shortages: Meeting the demand without sacrificing quality preparation and support*. The report noted that there is an urgent need to find multiple, flexible, and innovative ways to attract new people into high quality, supportive teacher preparation programs. Such training programs, the CEEDAR Center concludes, must prepare educators to work in inclusive environments. The program's blended delivery model is intended to serve students desiring to work as special educators in Maine schools, particularly students in western and central Maine. Additionally, the median age in Maine is 44, five years older than the median age across the rest of the US. Thus, impending retirements of veteran special education teachers will only increase the demand for special education teachers. The program has the potential to attract young people from all New England states through New England Board of Higher Education's New England Regional Student Program. Given that Maine has reported a

shortage of special educators for years, it is clear that the current special education degree and certification program offerings in the State are simply not enough to meet the demand.

In addition to the documented need for special education teachers and leaders, there is demand from the field for UMF to offer a master's degree in special education. UMF currently has several master's students who focus on special education as part of their concentration in the master's degree in education leadership. Other students take part in the administration concentration with the intent to becoming certified as a special education administrator. These students often indicate that they want a master's in special education but also want to pursue their master's degree at UMF. Additionally, the Office of Graduate Studies receives regular inquiries from current SPARC students as well as the field about offering a master's degree in special education.

Several recent surveys also support the development of this degree. In January of 2019, various groups were sent surveys to gauge the level of interest in this degree and to also identify areas of need to target through curriculum development. Specifically, three separate groups were surveyed: current students in undergraduate special education courses, and current students in SPARC graduate level special education courses, and school district special education administrators.

**Current undergraduate survey results:** Thirty-six students currently enrolled as undergraduates at UMF's College of Education, Health and Rehabilitation responded to the survey. Twenty-nine of the respondents indicated an interest in participating in a master's degree in special education offered by UMF. Twenty-eight of the respondents indicated an interest in participating in a UMF 4+1 program to earn a master's of special education in their 5th year. The respondents were a diverse group, including majors in early childhood education ( $n=5$ ), early childhood special education ( $n=3$ ), special education ( $n=10$ ), elementary education ( $n=6$ ), secondary education ( $n=7$ ), rehabilitation ( $n=2$ ), double major in psychology and special education ( $n=1$ ), double major in rehabilitation and special education, ( $n=1$ ) and an undeclared major ( $n=1$ ).

**Current SPARC graduate students:** Thirty-nine students who had recently participated in SPARC courses responded to the survey. Many of these students are seeking special education teacher certification and are employed in school districts as teachers or paraprofessionals (i.e., Educational Technicians). Thirty-three of the respondents indicated an interest in participating in a master's degree in special education offered by UMF. The specializations planned for the program were also of interest. Specifically, a number of respondents indicated interest in special education administration ( $n=21$ ), a certification track ( $n=16$ ), inclusive education ( $n=15$ ), low incidence disabilities ( $n=14$ ), and assistive technology ( $n=10$ ) (note: totals add up to over thirty-three as respondents could indicate more than one area of interest). Only three respondents indicated a desire for UMF to offer other specializations (e.g., autism, behavior).

**Special education administrators:** Special education administrators are a key constituency. Special education administrators hire and train special education teachers, supervise staff, and oversee compliance and implementation of special education programs. Thus, their input was sought to identify important features of this proposed degree. Of the 60

respondents, 58 indicated their support for this program. The proposed specializations were also popular among administrators. Eighty-one percent indicated support for a specialization leading to special education teacher certification. Sixty-one percent indicated an interest in a specialization focused on inclusive education, followed by specializations in special education administration (55%), low incidence disabilities (46%), and assistive technology (23%).

**C. Detailed survey of similar programs that are offered within the University System, other higher education institutions or other agencies within the State.**

A search of existing programs in the State of Maine found three graduate programs relevant to the one proposed. As can be seen, this proposed master's degree would be the only program that offers a blended (face-to-face and online) delivery model.

- University of Maine (100% online)
- University of Southern Maine (100% online)
- University of New England master's in education offers a 15 credit concentration in special education (100% online)

*University of Maine* The University of Maine (UMaine) offers a master's degree in special education. The degree is offered 100% online and offers concentrations in early intervention, high incidence disabilities, and low incidence disabilities. UMaine also offers a Certificate of Advanced Studies in special education for students who already have a master's degree.

*University of Southern Maine* The University of Southern Maine (USM) offers a master's degree in special education with concentrations in initial teacher certification, gifted and talented education, or a core knowledge concentration that includes courses in applied behavior analysis (ABA). This latter concentration can be taken as part of a post-master's certification in applied behavior analysis.

*University of New England* The University of New England does not offer a master's degree in special education. However, they offer a 15 credit concentration in special education as part of the master of education degree that is offered 100% online.

**D. Enrollment projections for five years.**

Given current enrollment in SPARC and undergraduate courses as well as the recent survey data, we anticipate enrolling 20 students in the first year of operation (2020-2021) and would accept approximately 20 students annually. As an accelerated program, undergraduate students choosing the 4+1 option will participate in the program for about a year, which means that enrollment will remain stable from year to year as only one cohort at a time will be participating. Students entering the program from UMF's SPARC program are projected to spend one to three years in the program depending on their prior coursework and pacing. Program enrollment is in part contingent upon undergraduate students choosing this accelerated pathway, an option that will need to be declared up to two years before completing the bachelor's degree. Thus, we expect enrollment to start small and expand after two to three years. Projected enrollment is detailed in the table below. Projections are based on survey data (see above) as well as inquiries received by the graduate office.

Semester*	2020	2021	2022	2023	2024
Number of Students Admitted	20	30	35	35	35

\*Typical program has students begin during summer session

**IV. Program content. The opening paragraph will indicate the holistic nature of the program design in narrative form with attention to such items as listed below but not limited to these:**

The master's degree program is intended to offer flexible options for students to specialize in a specific area with all students participating in a core program comprised of 12 credits. The core of the program emphasizes inclusive education, evidence-based practices (high-leverage practices), and research. These three areas will provide an advanced foundation ensuring students have the opportunity to emerge as leaders in the field as special education demands that practitioners can support students in inclusive classrooms while implementing best practices. The six credits in research also ensure that graduates have an understanding of research methods and current special education research, providing them with a foundation to make effective decisions based on available evidence and data.

In addition to the core, students will select a track or specialization based on their professional goals. These tracks and specializations have been carefully designed based on needs in the field and gaps in current special educator preparation programs in the State. Three options are designed to provide students with the necessary coursework and internship experiences to obtain certification (two special education teacher certification tracks and special education administrator certification track). One of these specializations is offered in collaboration with the University of Maine. The remaining tracks serve to provide students with specialized expertise in one of two areas: inclusive education and assistive technology. Tracks will be offered based on student demand and may be phased in over time, depending on demand from the field. Specifically, students may enter the program from one of three pathways: (1) as an undergraduate special education major at UMF (2) as an undergraduate special education minor at UMF, comprised of 20 credits in special education, or (3) upon completion of at least 9 graduate credits in special education through UMF's SPARC program. A list of undergraduate and graduate special education courses offered at UMF can be found in Appendix B.

**A. outline of required and/or elective courses;**

**Curriculum Outline for Special Education Master's Degree**

**Total credits for degree: 33**

**Core (12 credits)**

All students take 12 credits of core program courses

SED 551 Advanced Intervention Methods

EDU 582 Research Methods

SED 586 Special Education Research

SED 598 Inclusive Education Reform: A Social Justice Approach to School and Systemwide Reform

Students will also be required to take, or to have taken, a course in special education law (SED 450 or SED 518)

**Track or Specialization (21 credits)**

Students choose either a certification track or a specialization from the options below.

---

**Outline for Tracks and Specializations**

**Certification Track** (for those seeking Maine Department of Education Certification 282-Teacher-Disabled Students K-8 or 7-12)

Choose at least 12 credits from the following (based on individual certification needs)

\*SED 503 Preparing Students for the Future: Transition Programming, Self-Determination, and Advocacy

SED 504 Collaborative Partnerships Among Individuals with Disabilities, Families, and Professionals

SED 505 Universal Design for Learning and Curriculum Access

\*SED 506 Assessment in Special Education

\*SED 507 Curriculum and Instructional Programming for Students with Disabilities

\*\*\*SED 508 Classroom and Behavior Management of Students with Disabilities

SED 511 Mathematics Instruction for Students with Disabilities

SED 514 Literacy Development for All Students

\*SED 518 Special Education Law

SED 519 Assistive Technology

\*\*\*SED 529 Individualized Positive Behavior Supports

Other graduate courses (see specializations below, for example)

\*Courses are required for 282 certification (K-8 and 7-12)

\*\*Course required for 282 certification (7-12 only)

\*\*\*At least one of these courses required for 282 certification (K-8 or 7-12)

6 credits of internship to meet State certification requirements

SED 522 Internship in Special Education (3 credits, repeated for 6 credits total)



**Low Incidence Disabilities Track** (offered in collaboration with the University of Maine)

SED 528 Educational Methods for students with autism (UMaine)

SED 536 Instructional strategies for students with severe disabilities (UMaine)

SED 556 Assessment II: Students with autism spectrum disorders and severe disabilities (UMaine)

SED 563 Positive behavior support for students with autism spectrum disorders (UMaine)

SED 522 Internship in Special Education (3 credits, repeated for 6 credits total) (UMF course)

SED 599 Advanced inclusive education (UMF course)

**Special Education Administration Track** (for those seeking Maine Department of Education Certification 030 Administrator of Special Education)

EDU 550 School Law for Administrators

EDU 551 Changing Educational Organizations in a Diverse World

EDU 552 Supervision and Evaluation of School Personnel

EDU 553 Finance for School Administrators

EDU 554 Internship in School Leadership (6 credits)

3 credits of electives or SED 518 Special Education Law\*

\*Required if a special education law course not already taken

**Assistive Technology Specialization**

SED 519 Assistive Technology Devices and Services (Prerequisite if not taken already)

SED 571 Software and Mobile Technologies for Individuals with disAbilities

SED 572 Designing Adapted Environments

SED 573 Alternative Communication and Transition

SED 574 Assessment, Planning and Implementation in Assistive Technology

SED 570 Internship in Assistive Technology

3-6 credits of electives

**Inclusive Schools and Leadership Specialization**

EDU 550 School Law for Administrators

EDU 551 Changing Educational Organizations in a Diverse World

SED 599 Advanced Inclusive Education

SED 590 Internship in Inclusive Schools (3 credits, repeated for 6 credits total)

9 credits of electives at the 500 level

**B. development of new courses and/or what they may displace;**

No courses are being displaced but most of the graduate courses needed will be newly developed. Courses that will be new to the graduate catalog include:

SED 586

SED 551

SED 599

SED 570

SED 571

Proposal for Master of Science in Education in Special Education  
University of Maine Farmington, 2019

SED 572

SED 573

SED 574

SED 590

**C. type of research activity, if any, in program design;**

As part of the degree program requirements, students will enroll in two research courses. First, students will take EDU 582: Research Methods. EDU 582 is designed to introduce educators to different methodological frameworks in educational research and become more familiar with a range of research designs and practices. Participants select an area of inquiry and begin an in-depth analysis of the research on this topic. This is a foundational course that will precede enrollment in SED 586: Special Education Research, which will be a capstone research experience where students will design and conduct a research study in the field under the mentorship of a faculty advisor.

**D. nature of independent study, clinical experience, and/or field practicums employed in curriculum design;**

Field experiences will vary for students depending on the track they select. However, all students will take part in rigorous and relevant field experiences through coursework, internship, or practica. For students seeking certification as a special education teacher, a year-long internship (SED 522) that meets the requirements for State certification (i.e., 282 endorsement) will be offered. This internship will take place in a special education setting under the direction of a mentor special education teacher in the field and a university-based field supervisor. UMF currently staffs a Field Services office for such purposes, which includes a Director of Field Services as well as several field supervisors. This office has already been consulted about graduate level field experiences and continued collaboration will occur. Students not seeking certification will be offered various field experiences within their area of specialization. For example, under the direction of a faculty mentor, students specializing in assistive technology will have the opportunity to explore, implement, and practice assessment and intervention strategies in the field with students with disabilities. Students specializing in special education administration will take part in an administrative internship that is currently offered through UMF's Educational Leadership program.

**E. impact of program on existing programs on the campus.**

As part of the program design, it is expected that this degree will attract new students into the special education major and the special education minor, thus increasing the demand for undergraduate special education courses at UMF.

The master's degree in special education will also share resources with the existing graduate studies office. For example, currently, Education Leadership students take EDU 582: Research Methods. Students in the special education master's program will also take this course, which will likely increase the number of course sections offered during the year. Similarly, students choosing the special education administration specialization in this new degree program will also take part in an administration internship. This internship is currently offered at UMF for students in the administration track of the Education Leadership program.



Again, this may either increase the number of students taking this course or may increase the demand for more sections of the course.

Operationally, graduate studies will also be influenced by this new program. First, additional administrative tasks related to admissions and registration will occur and can be absorbed by the current staff. Also, This will be the third master's degree at UMF requiring a research experience. Thus, Institutional Review Board (IRB) workload may increase by up to 25%. The Office of Graduate Studies is currently taking part in conversations with IRB members to further understand the impact of this change and support streamlined ways to implement research that meets regulatory ethics requirements.

## **V. Program resources.**

### **A. Personnel.**

#### **1. Vita of faculty and staff who will assume major role for program.**

See appendix A.

#### **2. Specific effect on existing programs of faculty assignments to new program. List necessary faculty adjustments.**

Currently faculty in the special education program will have adjustments to their teaching assignments. Currently, full-time special education faculty at UMF teach undergraduate courses only to special education majors and minors as well as other education majors needing a state-approved course in special education (SED 360/SED 361). The proposed degree includes the development of three new required courses in the core of the program and five to six additional courses across various specializations or tracks. Thus, with the development of this master's degree, faculty will also have some graduate teaching assigned to their course loads. Specifically, rather than automatically being assigned six undergraduate courses (3 spring/ 3 fall) per year, faculty would likely teach one to four graduate courses per year. This adjustment will be offset by the addition of a fifth tenure-track faculty member as well as a field supervisor whose duties will involve supervising internships and, depending on needs and expertise, supervising practica or teaching courses. The table below summarizes a hypothetical teaching "load" for five faculty members and one field supervisor that accounts for graduate and undergraduate courses in both programs.

Hypothetical Teaching Load Per Academic Year (based on 6 courses per year or equivalent)\*

Faculty #1	Faculty #2	Faculty #3	Faculty #4	Faculty #5**	Field Supervisor**
SED 100	SED 360	SED 301	SED 551	SED 360	SED 522 (6 cr.)
SED 100	SED 360	SED 307	SED 586	SED 570	SED 522 (6 cr.)
SED 361	SED 590	SED 314	SED 220	SED 571	SED 209
SED 361	SED 215	SED 308	SED 220	SED 572	SED 409
SED 361	SED 210	SED 320	SED 518	SED 573	

SED 360	SED 450	SED 212	SED 598	SED 599	
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**Notes:**

All 100-400 level courses are 4 credits, All 500 level courses are 3 credits unless otherwise indicated

Actual course assignments will vary based on faculty expertise and scheduling needs

\*All 500-level courses are new (except SED 518), 100-400 level course loads are based on current course demand

\*\*New positions

**B. Current library acquisitions available for new programs.**

UMF's Mantor Library has extensive resources available for this master's degree program due to the university already offering two master's degrees. Mantor Library provides access to more than 350,000 volumes and 75,000 serials in print and digital form, as well as over 140 full-text databases and indexes. Existing library resources currently support the two existing master's degree programs on campus (Educational Leadership and Early Childhood Education). Students and faculty have access to numerous databases including those commonly used in the field of special education such as Academic Search Complete, ERIC, JSTOR, and PsycInfo. Mantor Library also operates the Spenciner Curriculum Materials Center, housed in the Kalikow Education Center. The primary mission of the Spenciner Curriculum Materials Center is to provide an opportunity for UMF students in the fields of education, special education, and rehabilitation services to preview and evaluate a variety of materials for use with their students and/or clients. The center's collection includes books for children, both fiction and non-fiction, as well as manipulatives, assistive devices, and computer software and peripherals. Within the Spenciner Center is the Assistive Technology Collection (AT Center). As a partner of the Maine CITE program, the Center for Assistive Technology and its collection serve as a resource offered free to UMF students, faculty, and staff, and to individuals with disabilities and their families. It also serves as a resource to professionals in the community. The Assistive Technology Collection provides a place to view assistive technology (AT) devices, to receive instruction in the use and evaluation of the equipment, and to obtain information about AT in general. Many of the items may be signed out for use at home or in a school or therapeutic settings.

**C. New equipment necessary for new program and plan for its acquisition and implementation.**

It is not anticipated that any additional equipment will be needed for the program. Existing infrastructure and technology resources are adequate for online education as well as face-to-face courses.

**D. Additional space requirements, if any, including renovations.**

No additional space will be needed for the program. The program will be housed at the UMF Kalikow Education Center. Opened in 2007, the building has state-of-the-art technologies in all

of its classrooms and also houses offices for education faculty, administrators, and staff. The Kalikow Education Center is also home to the university's Office of Graduate Studies, which coordinates graduate degree programs, certificates, and course enrollment.

**E. Extent of cooperation with other programs, both on the initiating campus and other campuses.**

A unique feature of this degree program will be the opportunity for students to choose a specialization to develop expertise in a given content area of special education. One of these specializations (Low Incidence Disabilities) will be offered in collaboration with the University of Maine. Students will take the courses for this specialization through UMaine while taking their core program requirements through UMF. Additional specialization offerings may be developed in collaboration with UMaine and the University of Southern Maine as needs arise or students express particular interests. Such specializations may include, for example, early intervention (UMaine) or Applied Behavior Analysis (USM).

Additionally, one group of students that will have access to this program are undergraduate students at UMF that are completing a minor in special education. Thus, as is already the case, special education faculty will work closely with advisors of students minoring in special education to ensure effective advising. Also, the foundational research methods course in the program is also a required course for the master's in educational leadership. Coordination across programs will occur to ensure an effective, relevant learning experience for students enrolled in both degree programs.

Finally, the additional field experiences at the graduate level will require collaboration with UMF's Field Services office, which coordinates practicum and student teaching experiences. Coordinated activities between the special education program and field services include ensuring adequate staffing for practica and internships and ensuring field experiences are of high quality and meet State certification rules.

**VI. Total financial consideration.**

**A. Estimate of anticipated cost and anticipated income of the program for five years.**

Costs are estimated using current price of tuition and program costs (e.g., salary, benefits, travel)

<b>Fiscal Year</b>	<b>Cost</b>	<b>Income</b>
2021	\$166,194	\$260,480 (tuition based on 20 students) \$82,728 (donated funds) Total: \$343,208
2022	\$165,194	\$390,720 (30 students) \$82,728 (donated funds)
2023	\$165,194	\$455,840 (35 students)
2024	\$165,194	\$455,840 (35 students)

2025	\$165,194	\$455,840 (35 students)
Total	\$826,970	\$2,101,448

**B. Detailed information on first-year costs, including:**

**1. new personnel requirements (include employee benefits);**

The program will require an additional faculty member in special education (cost of one faculty line at rank of assistant professor (salary + benefits = \$82,728) and 1.0 FTE investment of a field supervisor (salary + benefits = \$64,344). This field supervisor cost is accounted for in the figures above although the university will work to identify existing resources within the Field Services department and division to defray this cost.

**2. first-year revenue and identity of source;**

Assuming enrollment of 20 full time students in the first year at \$13,024 per student, revenue generated from tuition is expected to be \$260,480. Additionally, through a donation, an additional \$82,728 would be allocated for the first two years.

**3. how operational costs are to be absorbed into current campus operating budget over a 5-year period;**

We anticipate that once the program is fully enrolled, the funding for the program will be self-sustaining through tuition dollars.

**4. what additional funding is required to support the program (identify the source);**

*Materials:* An additional estimated expense of \$400 per year will be needed to support materials acquisition. The program will include a required course on special education intervention and assessment (SED 551). Assessment courses in special education often include additional expenses for published assessment materials, including consumables. The undergraduate assessment course offered at UMF currently charges a course fee of \$20 per student for a total of \$400 (assuming 20 students taking the course) although the exact cost is determined by student enrollment. This approach will also be taken for the graduate course.

*AT costs:*

*Travel:* Field supervision for students in practica and internships is expected to be approximately \$1,200 per year. This estimate is based on current costs of field supervision in current undergraduate programs. The source for this funding will be from revenue generated through tuition. To offset some of this cost, some supervision activities will take place through distance modalities (e.g., conference calls).

*Field Services Mentors:* Students participating in internship or practical will be mentored by an in-service educator. Mentors in UMF teacher education programs currently receive a stipend of \$300 per semester. Assuming 10 students participating in a field experience it is anticipated that costs for mentors will be \$3,000.

*Course development:* New courses will be developed as part of the degree program. An anticipated cost of \$100 per day for 10 total days (\$1,000 total) during the summer is budgeted for this activity. The Office of Graduate Studies will utilize its own funding for this purpose.

*Adjunct/Overload or fiscal year faculty appointment:* We anticipate two to three courses per year will need to be taught as a course overload for a faculty member or to pay for an adjunct instructor (about \$10,000).

*Program coordination:* One tenure track faculty member will also serve as the program coordinator. Similar to UMF's early childhood master's degree program, this could be paid on a per credit basis. Currently, the early childhood coordination is paid at a rate of two credits per semester but the position includes advising. Because the master's program in special education will be advised by multiple faculty members, the program coordination would be paid at a rate of one credit per semester, including summer (3 credits per year at \$3,522).

**5. lifetime of outside or independent funding and plan for how and when ~ becomes part of E & G Budget.**

For this program, with the exception of donated funds in the first year to cover the cost of a new faculty member, we do not anticipate additional funding beyond student tuition and fees.

**VII. Program evaluation.**

**A. A post audit of an approved new program must be made after two years.**

This program will adhere to standards for review and accreditation through the New England Commission of Higher Education (NECHE) as well as the Council for the Accreditation of Education Preparation (CAEP). CAEP accreditation includes the use of multiple quantitative and qualitative data sources including student and graduate surveys, focus groups, and portfolio assessments. The program will utilize the TK20 data system to which other educator preparation programs on campus have access to upload documents, track student progress, and evaluate program outcomes.

**B. The results of the audit must be reported to the Vice Chancellor for Academic Affairs.**

Data from NECHE and CAEP accreditation activities will be shared with stakeholders internal and external to the university, including the Vice Chancellor for Academic Affairs.



Vice Chancellor for  
Academic Affairs  
15 Estabrooke Drive  
Orono, ME 04469

Tel: 207-581-5842  
Fax: 207-581-9212  
www.maine.edu

Date: April 30, 2019

To: Dr. James Page, Chancellor  
University of Maine System (UMS)

From:  Robert Neely, VCAA

Regarding: USM Academic Program Proposal: Doctor of Occupational Therapy

The University of Maine

University of Maine  
at Augusta

University of Maine  
at Farmington

University of Maine  
at Fort Kent

University of Maine  
at Machias

University of Maine  
at Presque Isle

University of  
Southern Maine

Please find attached a program proposal from the University of Southern Maine to offer a doctorate in Occupational Therapy (OTD) at their Lewiston Auburn College. With respect to procedure, the lead-up to this proposal included approval of an Intent to Plan in June, 2018 by the CAOC and me, adherence to the USM curricular approval process, including a recommendation from the USM Faculty Senate, and support from President Cummings and Provost Uzzi (attached). Additionally, the CAOC, reviewed this proposal on 14 April 2019 and recommended approval.

The primary rationale behind this request is that the accrediting body for occupational therapy (Accreditation Council for Occupational Therapy Education – ACOTE), is moving toward a requirement for a doctorate as the entry degree to practice in the discipline. Although the timeline for meeting this requirement has been extended by ACOTE, the need for such a program is clear and will be a forthcoming requirement. As written, the proposal seeks to offer a post-professional OTD to meet the needs of students who are entering, or have entered, the profession of occupational therapy. To date, the only competitors in Maine are Husson University and the University of New England. The proposal documents strong interest in this program by current students, and an internal UMS workforce analysis confirms the need for occupational therapists in Maine and across the country.

I am asking for approval to waive the requirement for external review of the proposal for the following reasons:

- a. ACOTE standards are quite prescriptive about program content and clinical experiences for the OTD. Review and reaccreditation by ACOTE will amply serve as external review.
- b. UMS analyses of job market demand support the need for occupational therapists in Maine.
- c. The waiver of mandatory external review is consistent with my pending recommendations to the UMS Board of Trustees as a means to expedite development of programs meeting a workforce need.





Vice Chancellor for  
Academic Affairs  
15 Estabrooke Drive  
Orono, ME 04469  
Tel: 207-581-5842  
Fax: 207-581-9212  
www.maine.edu

Given the current master's of occupational therapy at USM, existing faculty and other resources are sufficient to support this program without funding from the UMS and the program will be self-supporting. Thus, please accept this proposed program with my recommendation for approval.

	I approve	I do not approve for the reasons listed below	Additional information needed for a decision	Action
The University of Maine				
University of Maine at Augusta				
University of Maine at Farmington	✓			Approval of USM OTD program proposal

University of Maine  
at Fort Kent

5.1.19

University of Maine  
at Machias

*Chancellor James H. Page*

*Date*

University of Maine  
at Presque Isle

cc: Glenn Cummings, President, USM  
Jeannine Uzzi, Provost, USM

University of  
Southern Maine



**Office of the President**

March 1, 2019

Dr. Robert Neely  
Vice Chancellor for Academic and Student Affairs  
University of Maine System  
259 Estabrooke Hall  
15 Estabrooke Drive  
Orono, ME 04469

Dear Vice Chancellor Neely:

The University of Southern Maine (USM) is pleased to submit a new Program Proposal to the University of Maine System.

The faculty and the Dean of the Lewiston Auburn College at USM have developed an OTD in Occupational Therapy. This proposal is in response to the changing standards to practice Occupational Therapy across the US. The Master's program at USM has been successful in attracting students and producing distinguished alumni.

The enclosed Program Proposal has been unanimously recommended by the Faculty Senate and has the full support of Provost Jeannine Uzzi.

As with the Intent to Plan we submitted for this degree, the Program Proposal for the OTD in Occupational Therapy at LAC has my unequivocal support.

I request that the enclosed Program Proposal move to the next step of the approval process, the external review and comments and review by the Chief Academic Officers.

Sincerely,

A handwritten signature in dark ink, appearing to read "GL A. Cj." with a stylized flourish at the end.

Glenn A. Cummings  
President  
University of Southern Maine

ENC.

CC: Provost Uzzi  
Dean Toy  
Professor Bickmore  
File





UNIVERSITY OF  
**SOUTHERN MAINE**

**Provost and Vice President  
for Academic Affairs**

March 1, 2019

Dr. Glenn Cummings  
President  
University of Southern Maine  
93 Falmouth Street  
Portland, ME 04104

Dear President Cummings:

The Lewiston Auburn College and the Department of Occupational Therapy have developed a Program Proposal for a doctorate in Occupational Therapy.

OT has long been an area of study at USM with a highly successful Master's degree. Here, the program looks to address a need for doctorally-prepared practioners for the state of Maine and beyond.

At USM, the initial phase of any new degree program is the Intent to Plan phase. As you remember, the Intent to Plan followed the approval processes, with input from the program, recommendation and approval from the LAC Dean, and review and recommendation by the other college deans, review and recommendation by the Faculty Senate per its bylaws. You approved the Intent to Plan in June 2018 and forwarded to the University of Maine System for consideration. We were notified of approval of the Intent to Plan and permission to move to the Program Proposal stage on June 29, 2018.

Since that time, the Occupational Therapy program has worked to complete the Program Proposal, going into extensive detail about the proposed doctoral degree including program goals and the curriculum.

Throughout this process I have reviewed the Intent to Plan and Program Proposal thoroughly and have provided feedback to the program; I am satisfied the faculty considered my recommendations and incorporated responses into the document I am now recommending.

I am pleased to forward this Occupational Therapy Doctorate Program Proposal to you with my full support.

Sincerely,



Dr. Jeannine D. Uzzi  
Provost and Vice President for Academic Affairs

ENC.

cc: Dean Toy  
Professor Bickmore  
File



**Program Proposal:** University of Southern Maine Occupational Therapy

- I. Doctor of Occupational Therapy (Post Professional Level)
- II. Program Objectives:

A. The University of Southern Maine at Lewiston Auburn College presently has the only Occupational Therapy program at the Registered Occupational Therapist (OTR) level in the University of Maine System. The program is accredited and is under the direct order as follows:

***The Accreditation Council for Occupational Therapy Education (ACOTE®), which has independent authority to set standards for the profession's education programs, took action at its recent August 3–6, 2017, meeting to mandate to move the entry-level degree for the occupational therapist to the doctoral level by 2027.***



In order for the University of Maine system to continue to offer occupational therapy education, the current Master of Occupational Therapy program will need to transition to a Doctor of Occupational Therapy program.

B. This proposal is to offer a post-professional Doctor of Occupational Therapy degree option for students in the Master of Occupational Therapy program to continue their education to the terminal degree point of the profession. The profession of occupational therapy has been debating for several years the appropriate entry degree for the occupational therapist. In 2014, the profession recommended transitioning to an entry level OTD. At that time, many programs began or continued planning for the OTD.

Given the ability to currently enter the profession at both a master's or doctoral degree, programs are required to consider how they will position themselves within the profession and how they will meet the expectations of students at both a master's degree and a clinical doctorate. The University of Southern Maine will transition to the mandatory doctorate as required by accreditation but this will happen over the next several years. We have current and past master's prepared students who are seeking the terminal degree in OT at this time.

C. The post professional occupational therapy doctoral program will educate students who are already entering or have entered the profession of occupational therapy. These students will get advanced training beyond their current degree in areas in alignment with the current accreditation doctoral standards while also allowing students to expand their knowledge in a current area of clinical practice.



III. Evidence of Program Need:

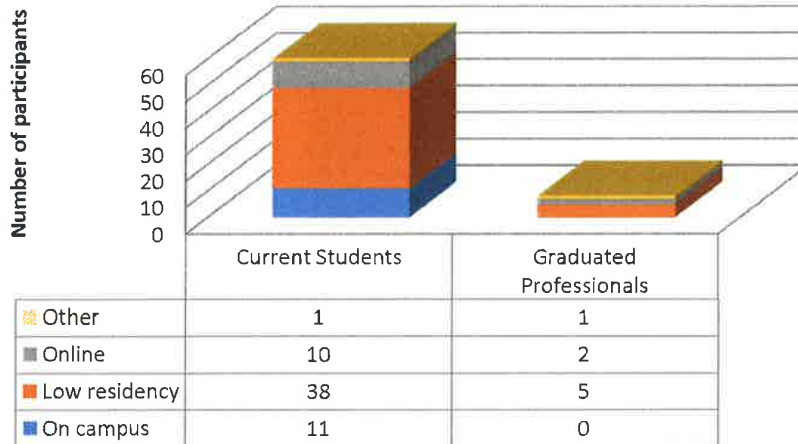
- A. The field of occupational therapy is consistently rated as a top job and recession proof job by outlets such as US News and World Report, Glassdoor, MSN Money, and Forbes magazine.  
<https://www.aota.org/Education-Careers/Considering-OT-Career/JobOutlook.aspx>

The American Occupational Therapy Association Workforce Trends in OT has been included in Appendix A of this document for review.

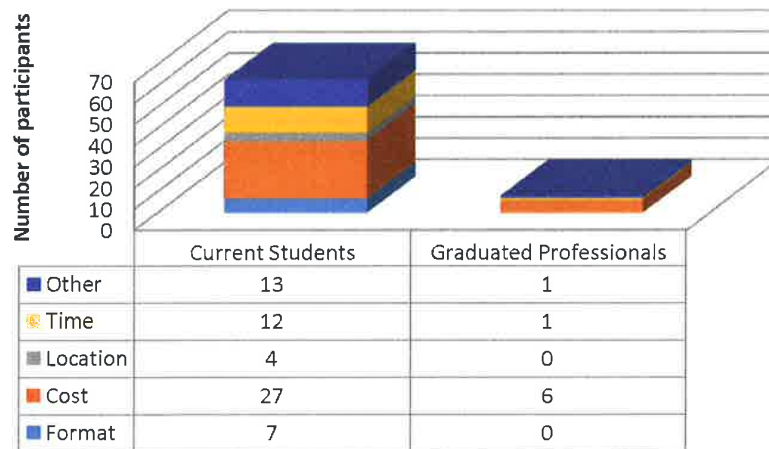
- B. The Master of Occupational Therapy program currently supports the State of Maine employers with qualified occupational therapy personnel. Employers include our school systems, hospitals, long term care facilities, preschool/early intervention programs, community day programs, psychiatric care centers, and private practices. The program also provides qualified personnel who are employed throughout the United States in these areas of practice.
- C. There are currently no other programs within the University System. There are two other programs within the state of Maine. One program is at Husson University in Bangor and the second is at the University of New England in Portland. Both programs will be moving to the doctoral degree as mandated by ACOTE.
- D. We anticipate this degree will have a ten year timeframe as current occupational therapists transition to the doctoral level. In a 2017 USM survey of the students currently enrolled in the program, as well as clinicians in the community, the reality of obtaining a post professional degree to maintain the credentials of future entry level practitioners is a strong consideration for many.

Survey data was collected from 63 current graduate students and 8 graduated professionals. Of the graduate students, 24 were in their first year, 20 in their second and 18 in their third. Of the graduated professionals, 6 graduated from the University of Southern Maine and 2 graduated elsewhere. Results of each question are below.

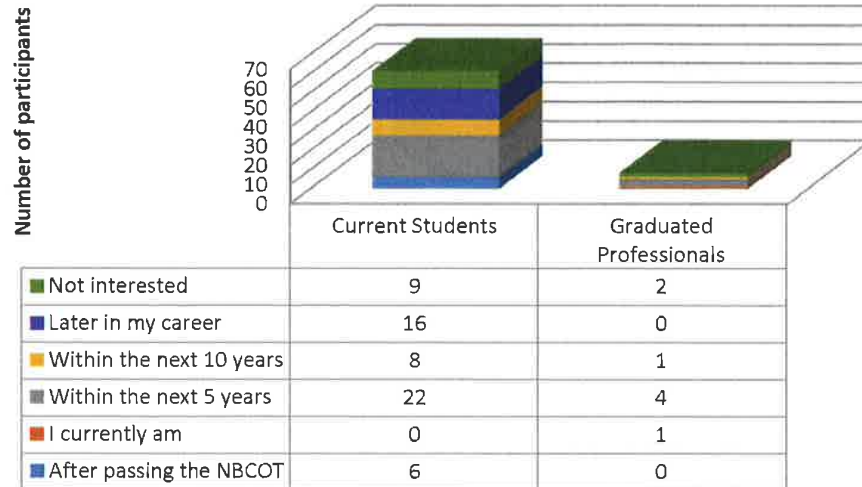
### If you want to attend an OTD program, what format would you prefer?



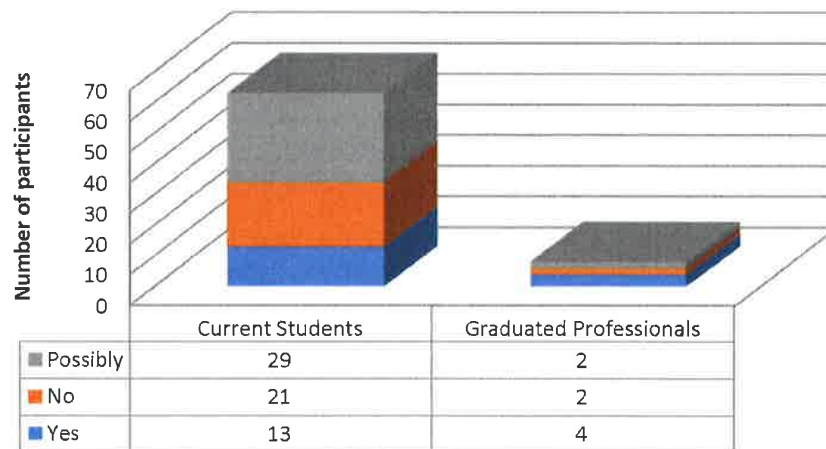
### What are the key factors influencing your likelihood to enter an OTD program?



### When would you consider attending an OTD program?



### Are you interested in attending a post profession OTD program?





IV. Program Content:

- A. The full MOT curriculum will be used as a foundation for the transition to the doctoral degree and the final year courses will be used as a foundation for the post professional degree. The MOT course sequence is included in Appendix B of this document and can be found at <https://usm.maine.edu/ot/course-descriptions>. The doctoral program content is informed by the ACOTE standards for the entry level doctorate. The primary heading for each content area is listed below and a full copy of the standards is attached in Appendix C to this document and can be found at

<https://www.aota.org/~media/Corporate/Files/EducationCareers/Accredit/Standards/2011-Standards-and-Interpretive-Guide.pdf> :

B.1.0. FOUNDATIONAL CONTENT REQUIREMENTS Program content must be based on a broad foundation in the liberal arts and sciences. A strong foundation in the biological, physical, social, and behavioral sciences supports an understanding of occupation across the lifespan. If the content of the Standard is met through prerequisite coursework, the application of foundational content in sciences must also be evident in professional coursework.

B.2.0. BASIC TENETS OF OCCUPATIONAL THERAPY

B.3.0. OCCUPATIONAL THERAPY THEORETICAL PERSPECTIVES

B.4.0. SCREENING, EVALUATION, AND REFERRAL The process of screening, evaluation, referral, and diagnosis as related to occupational performance and participation must be culturally relevant and based on theoretical perspectives, models of practice, frames of reference, and available evidence. In addition, this process must consider the continuum of need from individuals to populations.

B.5.0. INTERVENTION PLAN: FORMULATION AND IMPLEMENTATION The process of formulation and implementation of the therapeutic intervention plan to facilitate occupational performance and participation must be culturally relevant; reflective of current and emerging occupational therapy practice; based on available evidence; and based on theoretical perspectives, models of practice, and frames of reference. In addition, this process must consider the continuum of need from individual- to population-based interventions.

B.6.0. CONTEXT OF SERVICE DELIVERY Context of service delivery includes the knowledge and understanding of the various contexts, such as professional, social, cultural, political, economic, and ecological, in which occupational therapy services are provided.

B.7.0. LEADERSHIP AND MANAGEMENT Leadership and management skills include principles and applications of leadership and management theory.

B.8.0. SCHOLARSHIP Promotion of scholarly endeavors will serve to describe and interpret the scope of the profession, establish new knowledge, and interpret and apply this knowledge to practice.

B.9.0. PROFESSIONAL ETHICS, VALUES, AND RESPONSIBILITIES Professional ethics, values, and responsibilities include an understanding and appreciation of ethics and values of the profession of occupational therapy.



- B. The post professional level OTD will require coursework and capstone/experiential components that support further knowledge in contemporary practice and evidence based practice. The degree will also require an expansion of the current evidence based practice course sequence by adding additional research requirements per ACOTE standards. Additional coursework outlined in the standards that set the OTD degree apart from the MOT degree include a focus on leadership, population level interventions, public health and occupational therapy, international occupational therapy, community program planning, and other higher level functions within the scope of practice of an occupational therapist with a doctoral degree. It is anticipated that the post professional doctorate will be approximately 36 credits. See Appendix D for Curriculum Committee approval.
- C. The doctoral degree has a mandated set of standards of research activity included below that will support the clinician transitioning to doctoral level:
  - B.8.1. Articulate the importance of how scholarly activities contribute to the development of a body of knowledge relevant to the profession of occupational therapy.
  - B.8.2. Effectively locate, understand, critique, and evaluate information, including the quality of evidence.
  - B.8.3. Use scholarly literature to make evidence-based decisions.
  - B.8.4. Select, apply, and interpret basic descriptive, correlational, and inferential quantitative statistics and code, analyze, and synthesize qualitative data.
  - B.8.5. Understand and critique the validity of research studies, including their design (both quantitative and qualitative) and methodology.
  - B.8.6. Design a scholarly proposal that includes the research question, relevant literature, sample, design, measurement, and data analysis.
  - B.8.7. Implement a scholarly study that evaluates professional practice, service delivery, and/or professional issues (e.g., Scholarship of Integration, Scholarship of Application, Scholarship of Teaching and Learning).
  - B.8.8. Write scholarly reports appropriate for presentation or for publication in a peer-reviewed journal. Examples of scholarly reports would include position papers, white papers, and persuasive discussion papers.
  - B.8.9. Demonstrate an understanding of the process of locating and securing grants and how grants can serve as a fiscal resource for scholarly activities.
  - B.8.10. Complete a culminating project that relates theory to practice and demonstrates synthesis of advanced knowledge in a practice area.





- D. Clinical experience is currently required within the MOT program and will be expanded in the OTD per the ACOTE standards listed below:

C.1.0. FIELDWORK EDUCATION Fieldwork education is a crucial part of professional preparation and is best integrated as a component of the curriculum design. Fieldwork experiences should be implemented and evaluated for their effectiveness by the educational institution. The experience should provide the student with the opportunity to carry out professional responsibilities under supervision of a qualified occupational therapy practitioner serving as a role model.

C.2.0. DOCTORAL EXPERIENTIAL COMPONENT The goal of the doctoral experiential component is to develop occupational therapists with advanced skills (those that are beyond a generalist level). The doctoral experiential component shall be an integral part of the program's curriculum design and shall include an in-depth experience in one or more of the following: clinical practice skills, research skills, administration, leadership, program and policy development, advocacy, education, or theory development. The student must successfully complete all coursework and Level II fieldwork and pass a competency requirement prior to the commencement of the doctoral experiential component. The specific content and format of the competency requirement is determined by the program.

- E. The post professional level OTD will allow MOT program graduates to obtain a doctoral degree during the profession transition to entry level OTD.

V. Program Resources:

A. Personnel

1. Current MOT Faculty:

- Dr. Tammy Bickmore, OTD – Program Director and Assistant Professor
- Dr. Mary Anderson, OTD – Lecturer
- Dr. Susan Noyes, PhD – Assistant Professor
- Dr. Bernadette Kroon, DPT – Lecturer
- Sarah Grinder, MOT, PhD Candidate – Lecturer
- Paula Spyropoulos, MA, OTR - Lecturer

Curriculum Vitae of faculty are included in Appendix E.

2. Erin McCall, MS, OTR is currently in a one year fixed length position in the MOT program for academic year 2018-2019. We are currently approved for and searching for a tenure track assistant professor position to replace this fixed length position.
- B. The USM library currently has the library resources to support this degree program.
- C. USM LAC currently has the equipment to support this degree program.
- D. USM LAC currently has the facilities to support this degree program.





- E. The program will be located at the University of Southern Maine and will continue to encourage undergraduate applications from all campuses as it currently does now. This includes select programs from USM Portland/Gorham (accelerated pathway), University of Maine Orono (Kinesiology), University of Maine Farmington (Rehabilitation) and other students interested in our program. We are currently exploring inter-professional education opportunities within USM and other institutions in the system for course shared course content. This includes programs such as nursing, athletic training, public health, and social work.

VI. Total Financial Consideration:

**Expenses**

<b>MOT Program</b>	<b>Personnel Cost</b>	<b>Operational Cost</b>	<b>Personnel Budget</b>	<b>Operational Budget</b>
2016-2017	\$725,664	\$50,651		
2017-2018	\$732,490	\$63,431		
2018-2019			\$816,491	\$86,927
2019-2020			\$836,251*	\$86,927
2020-2021			\$958,011**	\$86,927
2021-2022			\$1,053,771***	\$86,927
2022-2023			\$1,053,770	\$86,927

\*FL to AP search now

\*\*Additional AP and transition of current lecturer positions

\*\*\*Additional Capstone Coordinator, Doctoral Level

**Operational Budget 2018-2019**

Consulting Services Fees	\$0
Professional Services	\$40,217
Catering Svcs	\$500
Accreditation Fees	\$4,225
Conference & Registration Fees	\$12,185
Membership Dues	\$500
Books	\$200
Printing & Copying Svcs	\$0
Rentals & Leases	\$250
Supplies and Materials	\$0
Awards & Recognition Items	\$100
Laboratory Supplies	\$10,000
Office Supplies	\$250
Educational Supplies	\$8,000
Meals Non-Travel	\$500
Refreshments	\$200



In-State Travel	\$1,000
In-State Meals	\$2,500
Out of State Travel	\$2,000
YE Travel Accrual (acctg use)	\$0
Computer Equip < \$5000	\$4,200
Telephone & Telecommunications	\$0
Toll Charges	\$50
Network Access	\$50
Maintenance Copiers	\$0

## Revenue – AY17-18 through AY21-22

AY 2017-2018			
Total Credit Hours		Tuition Rate Per Credit Hour	
Fall 2017	1349	In-State	\$393
Spring 2018	1045	Out of State	\$1,063
Summer 2018	587	NEBHE/Canadian	\$629
Student Count*			
IS	81	Total Revenue AY 17-18	
OS	22	\$1,517,627	
NEBHE/CAN	2		
*Based on actual numbers			
AY 2019-2020			
Total Credit Hours		Tuition Rate Per Credit Hour	
Fall 2019	1406	In-State	\$407
Spring 2020	1144	Out of State	\$1,100
Summer 2020	640	NEBHE/Canadian	\$651
Student Count*			
IS	112	Total Revenue AY 19-20	
OS	12	\$1,511,101	
NEBHE/CAN	3		
*Based on actual numbers for current students			
Assumes incoming class of 40 (30 FT (27 IS, 3 OS), 10 PT (9 IS, 1 OS))			
AY 2021-2022			
Total Credit Hours		Tuition Rate Per Credit Hour	
Fall 2021	1398	In-State	\$407
Spring 2022	1140	Out of State	\$1,100
Summer 2022	650	NEBHE/Canadian	\$651
Student Count*			
IS	115	Total Revenue AY 21-22	
OS	12	\$1,516,582	
NEBHE/CAN	1		
*Based on actual numbers for current students			
Assumes incoming class of 40 (30 FT (27 IS, 3 OS), 10 PT (9 IS, 1 OS))			

AY 2018-2019			
Total Credit Hours		Tuition Rate Per Credit Hour	
Fall 2018	1319	In-State	\$407
Spring 2019	1107	Out of State	\$1,100
Summer 2019	625	NEBHE/Canadian	\$651
Student Count*			
IS	100	Total Revenue AY 18-19	
OS	16	\$1,492,924	
NEBHE/CAN	4		
*Based on actual numbers			
AY 2020-2021			
Total Credit Hours		Tuition Rate Per Credit Hour	
Fall 2020	1400	In-State	\$407
Spring 2021	1120	Out of State	\$1,100
Summer 2021	638	NEBHE/Canadian	\$651
Student Count*			
IS	115	Total Revenue AY 20-21	
OS	11	\$1,495,060	
NEBHE/CAN	3		
*Based on actual numbers for current students			
Assumes incoming class of 40 (30 FT (27 IS, 3 OS), 10 PT (9 IS, 1 OS))			



VII. Program Evaluation

This degree program will be informed by the ACOTE accreditation standards and results reported to the University of Southern Maine Lewiston Auburn College Dean and the University of Southern Maine President and Provost.



## APPENDICIES



Appendix A



Resources for students  
from The American  
Occupational Therapy Association

## Your career in Occupational Therapy

### Workforce Trends in Occupational Therapy

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The demand for occupational therapy services is strong. The U.S. Department of Labor's Bureau of Labor Statistics (BLS) projected employment of occupational therapists to increase by 26% and of occupational therapy assistants to increase by 30% or more between 2008 and 2018. This projection is based on the Bureau's assumptions that demographic trends and advances in medical technology will continue to fuel demand for therapy services.

Occupational therapy workforce shortages are appearing in selected markets and sectors. Demand for occupational therapy services in early intervention programs and in schools that enroll children with disabilities who are served under the federal Individuals with Disabilities Education Improvement Act of 2004 remains strong. Newly emerging areas of practice for occupational therapy practitioners related to the needs of an aging population are increasing demand for services. These include low-vision rehabilitation; treatment of Alzheimer's disease and other forms of dementia, including caregiver training; older driver safety and rehabilitation; assisted living; and home safety and home modifications to enable "aging in place." In a survey of education program directors, the overwhelming majority (80%+) of the 318 programs reported that more than 80% of occupational therapy and occupational therapy assistant graduates were able to secure jobs within 6 months of graduation. Many of these graduates had secured job offers prior to graduating.

#### Current Workforce

Based on 2010 survey results from state occupational therapy regulatory boards, the American Occupational Therapy Association (AOTA) estimates the current active occupational therapy workforce to be roughly 137,000 practitioners. This includes approximately 102,500 occupational therapists and 34,500 occupational therapy assistants.

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Recent AOTA surveys indicate that 92% of practitioners are female, more than three quarters (85%) are employed full-time in the profession, and the median level of professional experience is 13 years.

Data from the 2010 AOTA Occupational Therapy Compensation and Workforce Study indicate a median annual income of \$64,722 for occupational therapists and \$44,000 for occupational therapy assistants.

In addition, the Workforce study indicated average entry-level salaries of \$52,000 for occupational therapists and \$34,298 for occupational therapy assistants. Recent indications of plentiful job advertisements and frequent sign-on bonuses suggest that those entry-level salaries continue to rise and that applicants are receiving multiple job offers.

Occupational therapy practitioners work in a wide range of settings including schools, hospitals, skilled nursing facilities, home health, outpatient rehabilitation clinics, psychiatric facilities, and community health programs. School systems, hospitals, and long-term-care facilities are the primary work settings for occupational therapists and occupational therapy assistants.

### Licensure and Regulation

The practice of occupational therapy is regulated in all 50 states, the District of Columbia, Puerto Rico, and Guam. The most common and highest form of regulation is licensure. Licensure is required in 48 of those jurisdictions for occupational therapists and 47 jurisdictions for occupational therapy assistants.

Colorado and Hawaii do not regulate occupational therapy assistants but do regulate occupational therapists (registration law in Hawaii and Colorado). Occupational therapy assistants are regulated by certification law in New York.

If you have specific questions about a career in occupational therapy, please contact [educate@aota.org](mailto:educate@aota.org). Visit [www.aota.org](http://www.aota.org) for more information about the profession and the activities of the American Occupational Therapy Association.



The American Occupational Therapy Association



## The Occupational Therapy Workforce (2010)

### Who They Are...

102,500	Occupational Therapists
34,500	Occupational Therapy Assistants
137,000	Total Practitioner Workforce

### Where They Work...

26.2%	Hospitals
21.6%	Schools
19.9%	Nursing Facilities
9.3%	Outpatient Clinics
5.8%	Home Health
5.2%	Academia
4.8%	Early Intervention
4.3%	Community/Other
2.9%	Mental Health

(AOTA Occupational Therapy Compensation and Workforce Study, 2010)





Appendix B





### Continuous Part Time\* Course Sequence Guide 2018-2019

\*Replaces old part time sequence fall 2018

FALL - YEAR 1		
Course #	Course Title	Credits
OTH 501	OT Foundations	3
OTH 502	Introduction to Occupation	3
OTH 503	Reflective Practitioner	3
Semester Total		9
SPRING - YEAR 1		
Course #	Course Title	Credits
OTH 506	Contextual Considerations	3
OTH 507	Ethics & Occupational Justice	3
OTH 514	Fund of Human Anatomy Lecture	3
OTH 515	Fund of Human Anatomy Lab	1
Semester Total		10
SUMMER - YEAR 1		
Course #	Course Title	Credits
OTH 505	Mental Health Part I Lecture	3
OTH 508	Mental Health Part I Lab	1
OTH 509	Level I Fieldwork: Mental Health	1
OTH 520	Neuroscience for OTs Lecture	3
OTH 521	Neuroscience for OTs Lab	1
Semester Total		9

FALL - YEAR 2		
Course #	Course Title	Credits
OTH 504	Research & EBP I	3
OTH 604	Infancy-Adolescence Part I Lecture	3
OTH 607	Infancy-Adolescence Part I Lab	1
Semester Total		7
SPRING - YEAR 2		
Course #	Course Title	Credits
OTH 518	Mental Health Part II	3
OTH 615	Infancy-Adol Part II Lecture	3
OTH 619	Infancy-Adol Part II Lab	1
Semester Total		7
SUMMER - YEAR 2		
Course #	Course Title	Credits
OTH 510	Level I Fieldwork: Comm Practice	1
OTH 512	Research & EBP II	3
OTH 603	Adulthood Part I Lecture	3
OTH 606	Adulthood Part I Lab	1
Semester Total		8

FALL - YEAR 3		
Course #	Course Title	Credits
OTH 511	Level I Fieldwork: Populations	1
OTH 605	Management in OT	3
OTH 602	Applied Kinesiology Lecture	3
OTH 609	Applied Kinesiology Lab	1
Semester Total		8
SPRING - YEAR 3		
Course #	Course Title	Credits
<i>January - March (7 weeks)</i>		
OTH 614	Adulthood Part II Lecture	3
OTH 617	Adulthood Part II Lab	1
<i>March - June (12 weeks)</i>		
OTH 620	First Level II Fieldwork	6
Semester Total		10
SUMMER - YEAR 3		
Course #	Course Title	Credits
OTH 608	Cognition and Perception	1
OTH 616	Professional Presentations	3
OTH 699	Advanced Topics in OT	2
Semester Totals		6
FALL - YEAR 4		
Course #	Course Title	Credits
OTH 621	Final Level II Fieldwork	6
Semester Totals		6
Total MOT Program Credits		80



FALL - YEAR 1		
Course #	Course Title	Credits
OTH 501	Occupational Therapy Foundations	3
OTH 502	Introduction to Occupation	3
OTH 503	Reflective Practitioner	3
OTH 506	Contextual Considerations	3
OTH 514	Fundamentals of Human Anatomy and Movement	3
OTH 515	Fundamentals of Human Anatomy and Movement Lab	1
Semester Total		16
SPRING - YEAR 1		
Course #	Course Title	Credits
OTH 504	Research and Evidence Based Practice I	3
OTH 505	Impact of Mental Health on Occupational Perf. Part I	3
OTH 508	Impact of Mental Health on Occupational Perf. Part I Lab	1
OTH 507	Ethics and Occupational Justice	3
OTH 509	Level I Fieldwork: Mental Health	1
OTH 520	Neuroscience for Occupational Therapists: Lecture	3
OTH 521	Neuroscience for Occupational Therapists: Laboratory	1
Semester Total		15
SUMMER - YEAR 1		
Course #	Course Title	Credits
OTH 510	Level I Fieldwork: Community Practice	1
OTH 512	Research and Evidence Based Practice II	3
OTH 603	Occupational Performance: Adulthood Part I	3
OTH 606	Occupational Performance: Adulthood Part I Lab	1
Semester Total		8

### Full Time Course Sequence Guide 2018 - 2019

FALL - YEAR 2		
Course #	Course Title	Credits
OTH 511	Level I Fieldwork: Populations	1
OTH 518	Impact of Mental Health on Occupational Perf. Part II	3
OTH 602	Applied Kinesiology and Exercise Physiology	3
OTH 609	Applied Kinesiology and Exercise Physiology Lab	1
OTH 604	Occupational Performance: Infancy-Adolescence Part I	3
OTH 607	Occupational Performance: Infancy-Adolescence Part I Lab	1
OTH 605	Management in Occupational Therapy	3
Semester Total		15
SPRING - YEAR 2		
Course #	Course Title	Credits
<b>January - March (7 weeks)</b>		
OTH 614	Occupational Performance: Adulthood Part II	3
OTH 617	Occupational Performance: Adulthood Part II Lab	1
OTH 615	Occupational Performance: Infancy-Adolescence Part II	3
OTH 619	Occupational Performance: Infancy-Adolescence Part II Lab	1
<b>March - June (12 weeks)</b>		
OTH 620	First Level II Fieldwork	6
Semester Total		14
SUMMER - YEAR 2		
Course #	Course Title	Credits
OTH 608	Reflections on Practice: Cognition and Perception	1
OTH 616	Professional Presentations	3
OTH 699	Advanced Topics in Occupational Therapy	2
Semester Total		6
FALL - YEAR 3		
Course #	Course Title	Credits
OTH 621	Final Level II Fieldwork	6
Semester Total		6
Total MOT Program Credits		80



Appendix C

**2011 Accreditation Council for Occupational Therapy Education (ACOTE®) Standards and Interpretive Guide  
(effective July 31, 2013)  
December 2017 Interpretive Guide Version**

STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
	<b>PREAMBLE</b>		
	<p>The rapidly changing and dynamic nature of contemporary health and human services delivery systems provides challenging opportunities for the occupational therapist to use knowledge and skills in a practice area as a direct care provider, consultant, educator, manager, leader, researcher, and advocate for the profession and the consumer.</p> <p>A graduate from an ACOTE-accredited doctoral-degree-level occupational therapy program must</p> <ul style="list-style-type: none"> <li>• Have acquired, as a foundation for professional study, a breadth and depth of knowledge in the liberal arts and sciences and an understanding of issues related to diversity.</li> <li>• Be educated as a generalist with a broad exposure to the delivery models and systems used in settings where occupational therapy is currently practiced and where it is emerging as a service.</li> <li>• Have achieved entry-level competence through a combination of academic and fieldwork education.</li> <li>• Be prepared to articulate and apply occupational therapy theory and evidence-based evaluations and interventions to achieve expected outcomes as related to occupation.</li> <li>• Be prepared to articulate and apply therapeutic use of occupations with individuals or groups for the purpose of participation in roles and situations in home, school, workplace, community, and other settings.</li> <li>• Be able to plan and apply occupational therapy interventions to address the physical, cognitive, psychosocial, sensory, and other aspects of performance in a variety of contexts and</li> </ul>	<p>The rapidly changing and dynamic nature of contemporary health and human services delivery systems requires the occupational therapist to possess basic skills as a direct care provider, consultant, educator, manager, researcher, and advocate for the profession and the consumer.</p> <p>A graduate from an ACOTE-accredited master's-degree-level occupational therapy program must</p> <ul style="list-style-type: none"> <li>• Have acquired, as a foundation for professional study, a breadth and depth of knowledge in the liberal arts and sciences and an understanding of issues related to diversity.</li> <li>• Be educated as a generalist with a broad exposure to the delivery models and systems used in settings where occupational therapy is currently practiced and where it is emerging as a service.</li> <li>• Have achieved entry-level competence through a combination of academic and fieldwork education.</li> <li>• Be prepared to articulate and apply occupational therapy theory and evidence-based evaluations and interventions to achieve expected outcomes as related to occupation.</li> <li>• Be prepared to articulate and apply therapeutic use of occupations with individuals or groups for the purpose of participation in roles and situations in home, school, workplace, community, and other settings.</li> <li>• Be able to plan and apply occupational therapy interventions to address the physical, cognitive, psychosocial, sensory, and other aspects of performance in a variety of contexts and environments to support engagement in everyday</li> </ul>	<p>The rapidly changing and dynamic nature of contemporary health and human services delivery systems requires the occupational therapy assistant to possess basic skills as a direct care provider, educator, and advocate for the profession and the consumer.</p> <p>A graduate from an ACOTE-accredited associate-degree-level occupational therapy assistant program must</p> <ul style="list-style-type: none"> <li>• Have acquired an educational foundation in the liberal arts and sciences, including a focus on issues related to diversity.</li> <li>• Be educated as a generalist with a broad exposure to the delivery models and systems used in settings where occupational therapy is currently practiced and where it is emerging as a service.</li> <li>• Have achieved entry-level competence through a combination of academic and fieldwork education.</li> <li>• Be prepared to articulate and apply occupational therapy principles and intervention tools to achieve expected outcomes as related to occupation.</li> <li>• Be prepared to articulate and apply therapeutic use of occupations with individuals or groups for the purpose of participation in roles and situations in home, school, workplace, community, and other settings.</li> <li>• Be able to apply occupational therapy interventions to address the physical, cognitive, psychosocial, sensory, and other aspects of performance in a variety of contexts and environments to support engagement in everyday</li> </ul>

STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
	<p>environments to support engagement in everyday life activities that affect health, well-being, and quality of life.</p> <ul style="list-style-type: none"> <li>• Be prepared to be a lifelong learner and keep current with evidence-based professional practice.</li> <li>• Uphold the ethical standards, values, and attitudes of the occupational therapy profession.</li> <li>• Understand the distinct roles and responsibilities of the occupational therapist and occupational therapy assistant in the supervisory process.</li> <li>• Be prepared to effectively communicate and work interprofessionally with those who provide care for individuals and/or populations in order to clarify each member's responsibility in executing components of an intervention plan.</li> <li>• Be prepared to advocate as a professional for the occupational therapy services offered and for the recipients of those services.</li> <li>• Be prepared to be an effective consumer of the latest research and knowledge bases that support practice and contribute to the growth and dissemination of research and knowledge.</li> <li>• Demonstrate in-depth knowledge of delivery models, policies, and systems related to the area of practice in settings where occupational therapy is currently practiced and where it is emerging as a service.</li> <li>• Demonstrate thorough knowledge of evidence-based practice.</li> <li>• Demonstrate active involvement in professional development, leadership, and advocacy.</li> <li>• Relate theory to practice and demonstrate synthesis of advanced knowledge in a practice area through completion of a culminating project.</li> </ul>	<p>life activities that affect health, well-being, and quality of life.</p> <ul style="list-style-type: none"> <li>• Be prepared to be a lifelong learner and keep current with evidence-based professional practice.</li> <li>• Uphold the ethical standards, values, and attitudes of the occupational therapy profession.</li> <li>• Understand the distinct roles and responsibilities of the occupational therapist and occupational therapy assistant in the supervisory process.</li> <li>• Be prepared to effectively communicate and work interprofessionally with those who provide care for individuals and/or populations in order to clarify each member's responsibility in executing components of an intervention plan.</li> <li>• Be prepared to advocate as a professional for the occupational therapy services offered and for the recipients of those services.</li> <li>• Be prepared to be an effective consumer of the latest research and knowledge bases that support practice and contribute to the growth and dissemination of research and knowledge.</li> </ul>	<p>life activities that affect health, well-being, and quality of life.</p> <ul style="list-style-type: none"> <li>• Be prepared to be a lifelong learner and keep current with the best practice.</li> <li>• Uphold the ethical standards, values, and attitudes of the occupational therapy profession.</li> <li>• Understand the distinct roles and responsibilities of the occupational therapist and occupational therapy assistant in the supervisory process.</li> <li>• Be prepared to effectively communicate and work interprofessionally with those who provide care for individuals and/or populations in order to clarify each member's responsibility in executing components of an intervention plan.</li> <li>• Be prepared to advocate as a professional for the occupational therapy services offered and for the recipients of those services.</li> </ul>



STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
	<ul style="list-style-type: none"> <li>Develop in-depth experience in one or more of the following areas through completion of a doctoral experiential component: clinical practice skills, research skills, administration, leadership, program and policy development, advocacy, education, and theory development.</li> </ul>		
FOR ALL STANDARDS LISTED BELOW, IF ONE COMPONENT OF THE STANDARD IS NONCOMPLIANT, THE ENTIRE STANDARD WILL BE CITED. THE PROGRAM MUST DEMONSTRATE COMPLIANCE WITH ALL COMPONENTS OF THE STANDARD IN ORDER FOR THE AREA OF NONCOMPLIANCE TO BE REMOVED.			
<b>SECTION A: GENERAL REQUIREMENTS</b>			
<b>A.1.0. SPONSORSHIP AND ACCREDITATION</b>			
A.1.1.	The sponsoring institution(s) and affiliates, if any, must be accredited by the recognized regional accrediting authority. For programs in countries other than the United States, ACOTE will determine an alternative and equivalent external review process.	The sponsoring institution(s) and affiliates, if any, must be accredited by the recognized regional accrediting authority. For programs in countries other than the United States, ACOTE will determine an alternative and equivalent external review process.	The sponsoring institution(s) and affiliates, if any, must be accredited by a recognized regional or national accrediting authority.
A.1.2.	Sponsoring institution(s) must be authorized under applicable law or other acceptable authority to provide a program of postsecondary education and have appropriate doctoral degree-granting authority.	Sponsoring institution(s) must be authorized under applicable law or other acceptable authority to provide a program of postsecondary education and have appropriate degree-granting authority.	Sponsoring institution(s) must be authorized under applicable law or other acceptable authority to provide a program of postsecondary education and have appropriate degree-granting authority, or the institution must be a program offered within the military services.
A.1.3.	Accredited occupational therapy educational programs may be established only in senior colleges, universities, or medical schools.	Accredited occupational therapy educational programs may be established only in senior colleges, universities, or medical schools.	Accredited occupational therapy assistant educational programs may be established only in community, technical, junior, and senior colleges; universities; medical schools; vocational schools or institutions; or military services.
A.1.4.	The sponsoring institution(s) must assume primary responsibility for appointment of faculty, admission of students, and curriculum planning at all locations where the program is offered. This would include course content, satisfactory completion of the educational program, and granting of the degree. The sponsoring institution(s) must also be responsible for the coordination of classroom teaching and supervised fieldwork practice and for providing assurance that the practice activities assigned to students in a fieldwork setting are appropriate to the program.	The sponsoring institution(s) must assume primary responsibility for appointment of faculty, admission of students, and curriculum planning at all locations where the program is offered. This would include course content, satisfactory completion of the educational program, and granting of the degree. The sponsoring institution(s) must also be responsible for the coordination of classroom teaching and supervised fieldwork practice and for providing assurance that the practice activities assigned to students in a fieldwork setting are appropriate to the program.	The sponsoring institution(s) must assume primary responsibility for appointment of faculty, admission of students, and curriculum planning at all locations where the program is offered. This would include course content, satisfactory completion of the educational program, and granting of the degree. The sponsoring institution(s) must also be responsible for the coordination of classroom teaching and supervised fieldwork practice and for providing assurance that the practice activities assigned to students in a fieldwork setting are appropriate to the program.
	THE DEGREES MOST COMMONLY CONFERRED ARE THE OCCUPATIONAL THERAPY DOCTORATE (OTD) AND DOCTOR OF OCCUPATIONAL THERAPY (D-OT).	THE DEGREES MOST COMMONLY CONFERRED ARE THE MASTER OF OCCUPATIONAL THERAPY (MOT), MASTER OF SCIENCE IN OCCUPATIONAL THERAPY (MSOT), AND MASTER OF SCIENCE (MS). PROGRAMS OFFERING COMBINED BACCALAUREATE/MASTER'S (BS/MS OR BSMOT) DEGREES ARE STRONGLY ENCOURAGED TO AVOID USING "BACCALAUREATE IN	THE DEGREES MOST COMMONLY CONFERRED ARE THE ASSOCIATE OF APPLIED SCIENCE (AAS) AND ASSOCIATE OF SCIENCE (AS).

STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
		OCCUPATIONAL THERAPY AS THE BACCALAUREATE PORTION OF THE DEGREE NAME TO AVOID CONFUSING THE PUBLIC. DEGREE NAMES FOR THE BACCALAUREATE PORTION OF THE PROGRAM MOST COMMONLY USED ARE "BACCALAUREATE IN HEALTH SCIENCES," "BACCALAUREATE IN ALLIED HEALTH," "BACCALAUREATE IN OCCUPATIONAL SCIENCE," AND "BACCALAUREATE IN HEALTH STUDIES."	
A.1.5.	<p>The program must</p> <ul style="list-style-type: none"> <li>• Inform ACOTE of the transfer of program sponsorship or change of the institution's name within 30 days of the transfer or change.</li> <li>• Inform ACOTE within 30 days of the date of notification of any adverse accreditation action taken to change the sponsoring institution's accreditation status to probation or withdrawal of accreditation.</li> <li>• Notify and receive ACOTE approval for any significant program changes prior to the admission of students into the new/changed program.</li> <li>• Inform ACOTE within 30 days of the resignation of the program director or appointment of a new or interim program director.</li> <li>• Pay accreditation fees within 90 days of the invoice date.</li> <li>• Submit a Report of Self-Study and other required reports (e.g., Interim Report, Plan of Correction, Progress Report) within the period of time designated by ACOTE. All reports must be complete and contain all requested information.</li> <li>• Agree to a site visit date before the end of the period for which accreditation was previously awarded.</li> <li>• Demonstrate honesty and integrity in all interactions with ACOTE.</li> </ul>	<p>The program must</p> <ul style="list-style-type: none"> <li>• Inform ACOTE of the transfer of program sponsorship or change of the institution's name within 30 days of the transfer or change.</li> <li>• Inform ACOTE within 30 days of the date of notification of any adverse accreditation action taken to change the sponsoring institution's accreditation status to probation or withdrawal of accreditation.</li> <li>• Notify and receive ACOTE approval for any significant program changes prior to the admission of students into the new/changed program.</li> <li>• Inform ACOTE within 30 days of the resignation of the program director or appointment of a new or interim program director.</li> <li>• Pay accreditation fees within 90 days of the invoice date.</li> <li>• Submit a Report of Self-Study and other required reports (e.g., Interim Report, Plan of Correction, Progress Report) within the period of time designated by ACOTE. All reports must be complete and contain all requested information.</li> <li>• Agree to a site visit date before the end of the period for which accreditation was previously awarded.</li> <li>• Demonstrate honesty and integrity in all interactions with ACOTE.</li> </ul>	<p>The program must</p> <ul style="list-style-type: none"> <li>• Inform ACOTE of the transfer of program sponsorship or change of the institution's name within 30 days of the transfer or change.</li> <li>• Inform ACOTE within 30 days of the date of notification of any adverse accreditation action taken to change the sponsoring institution's accreditation status to probation or withdrawal of accreditation.</li> <li>• Notify and receive ACOTE approval for any significant program changes prior to the admission of students into the new/changed program.</li> <li>• Inform ACOTE within 30 days of the resignation of the program director or appointment of a new or interim program director.</li> <li>• Pay accreditation fees within 90 days of the invoice date.</li> <li>• Submit a Report of Self-Study and other required reports (e.g., Interim Report, Plan of Correction, Progress Report) within the period of time designated by ACOTE. All reports must be complete and contain all requested information.</li> <li>• Agree to a site visit date before the end of the period for which accreditation was previously awarded.</li> <li>• Demonstrate honesty and integrity in all interactions with ACOTE.</li> </ul>
THE PROGRAM IS ALSO RESPONSIBLE FOR COMPLYING WITH THE CURRENT REQUIREMENTS OF ALL ACOTE POLICIES, INCLUDING THE REQUIREMENT FOR THE PROGRAM TO SUBMIT A LETTER OF INTENT TO SEEK ACCREDITATION FOR AN ADDITIONAL LOCATION AT LEAST 12 MONTHS PRIOR TO THE PLANNED ADMISSION OF STUDENTS INTO THAT ADDITIONAL LOCATION			
<b>A.2.0. ACADEMIC RESOURCES</b>			
A.2.1.	The program must identify an individual as the program director who is assigned to the occupational therapy educational program on a full-time basis. The director may be assigned other institutional duties that do not	The program must identify an individual as the program director who is assigned to the occupational therapy educational program on a full-time basis. The director may be assigned other institutional duties that do not	The program must identify an individual as the program director who is assigned to the occupational therapy educational program on a full-time basis. The director may be assigned other institutional duties that do not

STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
	interfere with the management and administration of the program. The institution must document that the program director has sufficient release time to ensure that the needs of the program are being met.	interfere with the management and administration of the program. The institution must document that the program director has sufficient release time to ensure that the needs of the program are being met.	interfere with the management and administration of the program. The institution must document that the program director has sufficient release time to ensure that the needs of the program are being met.
<b>THE STANDARD DOES NOT ALLOW THE APPOINTMENT OF CO-DIRECTORS</b>			
A.2.2.	The program director must be an initially certified occupational therapist who is licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the program is located. The program director must hold a doctoral degree awarded by an institution that is accredited by a regional accrediting body recognized by the U.S. Department of Education (USDE). The doctoral degree is not limited to a doctorate in occupational therapy.	The program director must be an initially certified occupational therapist who is licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the program is located. The program director must hold a doctoral degree awarded by an institution that is accredited by a regional accrediting body recognized by the U.S. Department of Education (USDE). The doctoral degree is not limited to a doctorate in occupational therapy.	The program director must be an initially certified occupational therapist or occupational therapy assistant who is licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the program is located. The program director must hold a minimum of a master's degree awarded by an institution that is accredited by a regional or national accrediting body recognized by the U.S. Department of Education (USDE). The master's degree is not limited to a master's degree in occupational therapy.
	A DOCTORAL DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED REGIONAL ACCREDITATION SINCE THAT TIME.  FOR DEGREES FROM INSTITUTIONS IN COUNTRIES OTHER THAN THE UNITED STATES, ACOTE WILL DETERMINE AN ALTERNATIVE AND EQUIVALENT EXTERNAL REVIEW PROCESS.		A MASTER'S DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY OR NATIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED REGIONAL OR NATIONAL ACCREDITATION SINCE THAT TIME.  FOR DEGREES FROM INSTITUTIONS IN COUNTRIES OTHER THAN THE UNITED STATES, ACOTE WILL DETERMINE AN ALTERNATIVE AND EQUIVALENT EXTERNAL REVIEW PROCESS.
A.2.3.	The program director must have a minimum of 8 years of documented experience in the field of occupational therapy. This experience must include: <ul style="list-style-type: none"> <li>Clinical practice as an occupational therapist;</li> <li>Administrative experience including, but not limited to, program planning and implementation, personnel management, evaluation, and budgeting;</li> <li>Scholarship (e.g., scholarship of application, scholarship of teaching and learning); and</li> <li>At least 3 years of experience in a full-time academic appointment with teaching responsibilities at the postbaccalaureate level.</li> </ul>	The program director must have a minimum of 8 years of documented experience in the field of occupational therapy. This experience must include: <ul style="list-style-type: none"> <li>Clinical practice as an occupational therapist;</li> <li>Administrative experience including, but not limited to, program planning and implementation, personnel management, evaluation, and budgeting;</li> <li>Scholarship (e.g., scholarship of application, scholarship of teaching and learning); and</li> <li>At least 3 years of experience in a full-time academic appointment with teaching responsibilities at the postsecondary level.</li> </ul>	The program director must have a minimum of 5 years of documented experience in the field of occupational therapy. This experience must include: <ul style="list-style-type: none"> <li>Clinical practice as an occupational therapist or occupational therapy assistant;</li> <li>Administrative experience including, but not limited to, program planning and implementation, personnel management, evaluation, and budgeting;</li> <li>Understanding of and experience with occupational therapy assistants; and</li> <li>At least 1 year of experience in a full-time academic appointment with teaching responsibilities at the postsecondary level.</li> </ul>
THE TEACHING COMPONENT OF THE FULL-TIME ACADEMIC APPOINTMENT MAY BE MET THROUGH RESPONSIBILITY FOR AT LEAST ONE POSTSECONDARY (E.G., OTA) OR POSTBACCALAUREATE (E.G., OTM/OTD) COURSE THAT INCLUDES IMPLEMENTATION OF THE COURSE SYLLABUS, COURSE CONTENT, AND COURSE EVALUATION METHODS. THE ACADEMIC APPOINTMENT MUST BE FULL-TIME AND THE TEACHING RESPONSIBILITIES REQUIREMENT MAY BE MET THROUGH ONE COURSE THAT IS NOT LIMITED TO THE OCCUPATIONAL THERAPY EDUCATIONAL PROGRAM.			



STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
A.2.4.	The program director must be responsible for the management and administration of the program, including planning, evaluation, budgeting, selection of faculty and staff, maintenance of accreditation, and commitment to strategies for professional development.	The program director must be responsible for the management and administration of the program, including planning, evaluation, budgeting, selection of faculty and staff, maintenance of accreditation, and commitment to strategies for professional development.	The program director must be responsible for the management and administration of the program, including planning, evaluation, budgeting, selection of faculty and staff, maintenance of accreditation, and commitment to strategies for professional development.
A.2.5.	(No related Standard)	(No related Standard)	In addition to the program director, the program must have at least one full-time equivalent (FTE) faculty position at each accredited location where the program is offered. This position may be shared by up to three individuals who teach as adjunct faculty. These individuals must have one or more additional responsibilities related to student advisement, supervision, committee work, program planning, evaluation, recruitment, and marketing activities.
A.2.6.	The program director and faculty must possess the academic and experiential qualifications and backgrounds (identified in documented descriptions of roles and responsibilities) that are necessary to meet program objectives and the mission of the institution.	The program director and faculty must possess the academic and experiential qualifications and backgrounds (identified in documented descriptions of roles and responsibilities) that are necessary to meet program objectives and the mission of the institution.	The program director and faculty must possess the academic and experiential qualifications and backgrounds (identified in documented descriptions of roles and responsibilities) that are necessary to meet program objectives and the mission of the institution.
A.2.7.	<p>The program must identify an individual for the role of academic fieldwork coordinator who is specifically responsible for the program's compliance with the fieldwork requirements of Standards Section C.1.0 and is assigned to the occupational therapy educational program as a full-time faculty member as defined by ACOTE. The academic fieldwork coordinator may be assigned other institutional duties that do not interfere with the management and administration of the fieldwork program. The institution must document that the academic fieldwork coordinator has sufficient release time to ensure that the needs of the fieldwork program are being met.</p> <p>This individual must be a licensed or otherwise regulated occupational therapist. Coordinators must hold a doctoral degree awarded by an institution that is accredited by a USDE-recognized regional accrediting body.</p>	<p>The program must identify an individual for the role of academic fieldwork coordinator who is specifically responsible for the program's compliance with the fieldwork requirements of Standards Section C.1.0 and is assigned to the occupational therapy educational program as a full-time faculty member as defined by ACOTE. The academic fieldwork coordinator may be assigned other institutional duties that do not interfere with the management and administration of the fieldwork program. The institution must document that the academic fieldwork coordinator has sufficient release time to ensure that the needs of the fieldwork program are being met.</p> <p>This individual must be a licensed or otherwise regulated occupational therapist. Coordinators must hold a minimum of a master's degree awarded by an institution that is accredited by a USDE-recognized regional accrediting body.</p>	<p>The program must identify an individual for the role of academic fieldwork coordinator who is specifically responsible for the program's compliance with the fieldwork requirements of Standards Section C.1.0 and is assigned to the occupational therapy educational program as a full-time faculty member as defined by ACOTE. The academic fieldwork coordinator may be assigned other institutional duties that do not interfere with the management and administration of the fieldwork program. The institution must document that the academic fieldwork coordinator has sufficient release time to ensure that the needs of the fieldwork program are being met.</p> <p>This individual must be a licensed or otherwise regulated occupational therapist or occupational therapy assistant. Coordinators must hold a minimum of a baccalaureate degree awarded by an institution that is accredited by a USDE-recognized regional or national accrediting body.</p>
	A DOCTORAL DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED	A MASTER'S DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED	A BACCALAUREATE DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY OR NATIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR

STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
	REGIONAL ACCREDITATION SINCE THAT TIME.  FOR DEGREES FROM INSTITUTIONS IN COUNTRIES OTHER THAN THE UNITED STATES, ACOTE WILL DETERMINE AN ALTERNATIVE AND EQUIVALENT EXTERNAL REVIEW PROCESS.	REGIONAL ACCREDITATION SINCE THAT TIME.  FOR DEGREES FROM INSTITUTIONS IN COUNTRIES OTHER THAN THE UNITED STATES, ACOTE WILL DETERMINE AN ALTERNATIVE AND EQUIVALENT EXTERNAL REVIEW PROCESS.	HAS BEEN AWARDED REGIONAL OR NATIONAL ACCREDITATION SINCE THAT TIME.  FOR DEGREES FROM INSTITUTIONS IN COUNTRIES OTHER THAN THE UNITED STATES, ACOTE WILL DETERMINE AN ALTERNATIVE AND EQUIVALENT EXTERNAL REVIEW PROCESS.
A 2.8.	Core faculty who are occupational therapists or occupational therapy assistants must be currently licensed or otherwise regulated according to regulations in the state or jurisdiction in which the program is located.  Faculty in residence and teaching at additional locations must be currently licensed or otherwise regulated according to regulations in the state or jurisdiction in which the additional location is located.	Core faculty who are occupational therapists or occupational therapy assistants must be currently licensed or otherwise regulated according to regulations in the state or jurisdiction in which the program is located.  Faculty in residence and teaching at additional locations must be currently licensed or otherwise regulated according to regulations in the state or jurisdiction in which the additional location is located.	Core faculty who are occupational therapists or occupational therapy assistants must be currently licensed or otherwise regulated according to regulations in the state or jurisdiction in which the program is located.  Faculty in residence and teaching at additional locations must be currently licensed or otherwise regulated according to regulations in the state or jurisdiction in which the additional location is located.
A 2.9.	(No related Standard)	(No related Standard)	In programs where the program director is an occupational therapy assistant, an occupational therapist must be included on faculty and contribute to the functioning of the program through a variety of mechanisms including, but not limited to, teaching, advising, and committee work. In a program where there are only occupational therapists on faculty who have never practiced as an occupational therapy assistant, the program must demonstrate that an individual who is an occupational therapy assistant or an occupational therapist who has previously practiced as an occupational therapy assistant is involved in the program as an adjunct faculty or teaching assistant.
			IN A PROGRAM WHERE THERE ARE ONLY OCCUPATIONAL THERAPISTS ON FACULTY WHO HAVE NEVER PRACTICED AS AN OCCUPATIONAL THERAPY ASSISTANT, THE PROGRAM MUST DEMONSTRATE THAT AN OCCUPATIONAL THERAPY ASSISTANT OR AN OCCUPATIONAL THERAPIST WHO HAS PREVIOUSLY PRACTICED AS AN OCCUPATIONAL THERAPY ASSISTANT HAS AN ONGOING INSTRUCTIONAL ROLE IN THE DELIVERY OF PROGRAMMATIC CONTENT THAT REFLECTS THE ROLE OF THE OCCUPATIONAL THERAPY ASSISTANT THROUGHOUT THE OCCUPATIONAL THERAPY PROCESS. THIS REQUIREMENT MAY BE FILLED BY ONE OR MORE PERSONS.

STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
A.2.10.	All full-time faculty teaching in the program must hold a doctoral degree awarded by an institution that is accredited by a USDE-recognized regional accrediting body. The doctoral degree is not limited to a doctorate in occupational therapy.	The majority of full-time faculty who are occupational therapists or occupational therapy assistants must hold a doctoral degree. All full-time faculty must hold a minimum of a master's degree. All degrees must be awarded by an institution that is accredited by a USDE-recognized regional accrediting body. The degrees are not limited to occupational therapy.  For an even number of full-time faculty, at least half must hold doctorates. The program director is counted as a faculty member.	All occupational therapy assistant faculty who are full-time must hold a minimum of a baccalaureate degree awarded by an institution that is accredited by a USDE-recognized regional or national accrediting body.
	A DOCTORAL DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015 FROM AN INSTITUTION THAT WAS NOT REGIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED REGIONAL ACCREDITATION SINCE THAT TIME  FOR DEGREES FROM INSTITUTIONS IN COUNTRIES OTHER THAN THE UNITED STATES, ACOTE WILL DETERMINE AN ALTERNATIVE AND EQUIVALENT EXTERNAL REVIEW PROCESS.	A DOCTORAL OR MASTER'S DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015 FROM AN INSTITUTION THAT WAS NOT REGIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED REGIONAL ACCREDITATION SINCE THAT TIME.  FOR DEGREES FROM INSTITUTIONS IN COUNTRIES OTHER THAN THE UNITED STATES, ACOTE WILL DETERMINE AN ALTERNATIVE AND EQUIVALENT EXTERNAL REVIEW PROCESS.	A BACCALAUREATE DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015 FROM AN INSTITUTION THAT WAS NOT REGIONALLY OR NATIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED REGIONAL OR NATIONAL ACCREDITATION SINCE THAT TIME  FOR DEGREES FROM INSTITUTIONS IN COUNTRIES OTHER THAN THE UNITED STATES, ACOTE WILL DETERMINE AN ALTERNATIVE AND EQUIVALENT EXTERNAL REVIEW PROCESS.
A.2.11.	The faculty must have documented expertise in their area(s) of teaching responsibility and knowledge of the content delivery method (e.g., distance learning).	The faculty must have documented expertise in their area(s) of teaching responsibility and knowledge of the content delivery method (e.g., distance learning).	The faculty must have documented expertise in their area(s) of teaching responsibility and knowledge of the content delivery method (e.g., distance learning).
	EVIDENCE OF EXPERTISE IN TEACHING ASSIGNMENTS MIGHT INCLUDE DOCUMENTATION OF RECENT CONTINUING EDUCATION, RELEVANT EXPERIENCE, FACULTY DEVELOPMENT PLAN REFLECTING ACQUISITION OF NEW CONTENT, INCORPORATION OF FEEDBACK FROM COURSE EVALUATIONS, AND OTHER SOURCES.		
A.2.12.	For programs with additional accredited location(s), the program must identify a faculty member who is an occupational therapist as site coordinator at each location who is responsible for ensuring uniform implementation of the program and ongoing communication with the program director.	For programs with additional accredited location(s), the program must identify a faculty member who is an occupational therapist as site coordinator at each location who is responsible for ensuring uniform implementation of the program and ongoing communication with the program director.	For programs with additional accredited location(s), the program must identify a faculty member who is an occupational therapist or occupational therapy assistant as site coordinator at each location who is responsible for ensuring uniform implementation of the program and ongoing communication with the program director.
A.2.13.	The occupational therapy faculty at each accredited location where the program is offered must be sufficient in number and must possess the expertise necessary to ensure appropriate curriculum design, content delivery, and program evaluation. The faculty must include individuals competent to ensure delivery of the broad scope of occupational therapy practice. Multiple adjuncts, part-time faculty, or full-time faculty may be configured to meet this goal. Each accredited additional location must have at least one full-time equivalent (FTE) faculty member.	The occupational therapy faculty at each accredited location where the program is offered must be sufficient in number and must possess the expertise necessary to ensure appropriate curriculum design, content delivery, and program evaluation. The faculty must include individuals competent to ensure delivery of the broad scope of occupational therapy practice. Multiple adjuncts, part-time faculty, or full-time faculty may be configured to meet this goal. Each accredited additional location must have at least one full-time equivalent (FTE) faculty member.	The occupational therapy assistant faculty at each accredited location where the program is offered must be sufficient in number and must possess the expertise necessary to ensure appropriate curriculum design, content delivery, and program evaluation. The faculty must include individuals competent to ensure delivery of the broad scope of occupational therapy practice. Multiple adjuncts, part-time faculty, or full-time faculty may be configured to meet this goal. Each accredited additional location must have at least one full-time equivalent (FTE) faculty member.

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A.2.14.	Faculty responsibilities must be consistent with and supportive of the mission of the institution.	Faculty responsibilities must be consistent with and supportive of the mission of the institution.	Faculty responsibilities must be consistent with and supportive of the mission of the institution.
A.2.15.	The faculty–student ratio must permit the achievement of the purpose and stated objectives for laboratory and lecture courses, be compatible with accepted practices of the institution for similar programs, and ensure student and consumer safety.	The faculty–student ratio must permit the achievement of the purpose and stated objectives for laboratory and lecture courses, be compatible with accepted practices of the institution for similar programs, and ensure student and consumer safety.	The faculty–student ratio must permit the achievement of the purpose and stated objectives for laboratory and lecture courses, be compatible with accepted practices of the institution for similar programs, and ensure student and consumer safety.
A.2.16.	Clerical and support staff must be provided to the program, consistent with institutional practice, to meet programmatic and administrative requirements, including support for any portion of the program offered by distance education.	Clerical and support staff must be provided to the program, consistent with institutional practice, to meet programmatic and administrative requirements, including support for any portion of the program offered by distance education.	Clerical and support staff must be provided to the program, consistent with institutional practice, to meet programmatic and administrative requirements, including support for any portion of the program offered by distance education.
<b>CLERICAL SUPPORT MUST BE SUFFICIENT TO THE MEET THE NEEDS OF THE PROGRAM AND BE CONSISTENT WITH INSTITUTIONAL PRACTICE</b>			
A.2.17.	The program must be allocated a budget of regular institutional funds, not including grants, gifts, and other restricted sources, sufficient to implement and maintain the objectives of the program and to fulfill the program's obligation to matriculated and entering students.	The program must be allocated a budget of regular institutional funds, not including grants, gifts, and other restricted sources, sufficient to implement and maintain the objectives of the program and to fulfill the program's obligation to matriculated and entering students.	The program must be allocated a budget of regular institutional funds, not including grants, gifts, and other restricted sources, sufficient to implement and maintain the objectives of the program and to fulfill the program's obligation to matriculated and entering students.
A.2.18.	Classrooms and laboratories must be provided that are consistent with the program's educational objectives, teaching methods, number of students, and safety and health standards of the institution, and they must allow for efficient operation of the program.	Classrooms and laboratories must be provided that are consistent with the program's educational objectives, teaching methods, number of students, and safety and health standards of the institution, and they must allow for efficient operation of the program.	Classrooms and laboratories must be provided that are consistent with the program's educational objectives, teaching methods, number of students, and safety and health standards of the institution, and they must allow for efficient operation of the program.
A.2.19.	If the program offers distance education, it must include <ul style="list-style-type: none"> <li>• A process through which the program establishes that the student who registers in a distance education course or program is the same student who participates in and completes the program and receives academic credit,</li> <li>• Technology and resources that are adequate to support a distance-learning environment, and</li> <li>• A process to ensure that faculty are adequately trained and skilled to use distance education methodologies.</li> </ul>	If the program offers distance education, it must include <ul style="list-style-type: none"> <li>• A process through which the program establishes that the student who registers in a distance education course or program is the same student who participates in and completes the program and receives academic credit,</li> <li>• Technology and resources that are adequate to support a distance-learning environment, and</li> <li>• A process to ensure that faculty are adequately trained and skilled to use distance education methodologies.</li> </ul>	If the program offers distance education, it must include <ul style="list-style-type: none"> <li>• A process through which the program establishes that the student who registers in a distance education course or program is the same student who participates in and completes the program and receives academic credit,</li> <li>• Technology and resources that are adequate to support a distance-learning environment, and</li> <li>• A process to ensure that faculty are adequately trained and skilled to use distance education methodologies.</li> </ul>
A.2.20.	Laboratory space provided by the institution must be assigned to the occupational therapy program on a priority basis. If laboratory space for occupational therapy lab classes is provided by another institution or agency, there must be a written and signed agreement to ensure assignment of space for program use.	Laboratory space provided by the institution must be assigned to the occupational therapy program on a priority basis. If laboratory space for occupational therapy lab classes is provided by another institution or agency, there must be a written and signed agreement to ensure assignment of space for program use.	Laboratory space provided by the institution must be assigned to the occupational therapy assistant program on a priority basis. If laboratory space for occupational therapy assistant lab classes is provided by another institution or agency, there must be a written and signed agreement to ensure assignment of space for program use.



STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
A.2.21.	Adequate space must be provided to store and secure equipment and supplies.	Adequate space must be provided to store and secure equipment and supplies.	Adequate space must be provided to store and secure equipment and supplies.
A.2.22.	The program director and faculty must have office space consistent with institutional practice.	The program director and faculty must have office space consistent with institutional practice.	The program director and faculty must have office space consistent with institutional practice.
A.2.23.	Adequate space must be provided for the private advising of students.	Adequate space must be provided for the private advising of students.	Adequate space must be provided for the private advising of students.
A.2.24.	Appropriate and sufficient equipment and supplies must be provided by the institution for student use and for the didactic, supervised fieldwork, and experiential components of the curriculum.	Appropriate and sufficient equipment and supplies must be provided by the institution for student use and for the didactic and supervised fieldwork components of the curriculum.	Appropriate and sufficient equipment and supplies must be provided by the institution for student use and for the didactic and supervised fieldwork components of the curriculum.
A.2.25.	Students must be given access to and have the opportunity to use the evaluative and treatment methodologies that reflect both current practice and practice in the geographic area served by the program.	Students must be given access to and have the opportunity to use the evaluative and treatment methodologies that reflect both current practice and practice in the geographic area served by the program.	Students must be given access to and have the opportunity to use the evaluative and treatment methodologies that reflect both current practice and practice in the geographic area served by the program.
A.2.26.	Students must have ready access to a supply of current and relevant books, journals, periodicals, computers, software, and other reference materials needed for the practice areas and to meet the requirements of the curriculum. This may include, but is not limited to, libraries, online services, interlibrary loan, and resource centers.	Students must have ready access to a supply of current and relevant books, journals, periodicals, computers, software, and other reference materials needed to meet the requirements of the curriculum. This may include, but is not limited to, libraries, online services, interlibrary loan, and resource centers.	Students must have ready access to a supply of current and relevant books, journals, periodicals, computers, software, and other reference materials needed to meet the requirements of the curriculum. This may include, but is not limited to, libraries, online services, interlibrary loan, and resource centers.
A.2.27.	Instructional aids and technology must be available in sufficient quantity and quality to be consistent with the program objectives and teaching methods.	Instructional aids and technology must be available in sufficient quantity and quality to be consistent with the program objectives and teaching methods.	Instructional aids and technology must be available in sufficient quantity and quality to be consistent with the program objectives and teaching methods.
<b>A.3.0. STUDENTS</b>			
A.3.1.	Admission of students to the occupational therapy program must be made in accordance with the practices of the institution. There must be stated admission criteria that are clearly defined and published and reflective of the demands of the program.	Admission of students to the occupational therapy program must be made in accordance with the practices of the institution. There must be stated admission criteria that are clearly defined and published and reflective of the demands of the program.	Admission of students to the occupational therapy assistant program must be made in accordance with the practices of the institution. There must be stated admission criteria that are clearly defined and published and reflective of the demands of the program.
A.3.2.	Institutions must require that program applicants hold a baccalaureate degree or higher prior to admission to the program.	<i>(No related Standard)</i>	<i>(No related Standard)</i>

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A.3.3.	Policies pertaining to standards for admission, advanced placement, transfer of credit, credit for experiential learning (if applicable), and prerequisite educational or work experience requirements must be readily accessible to prospective students and the public.	Policies pertaining to standards for admission, advanced placement, transfer of credit, credit for experiential learning (if applicable), and prerequisite educational or work experience requirements must be readily accessible to prospective students and the public.	Policies pertaining to standards for admission, advanced placement, transfer of credit, credit for experiential learning (if applicable), and prerequisite educational or work experience requirements must be readily accessible to prospective students and the public.
A.3.4.	Programs must document implementation of a mechanism to ensure that students receiving credit for previous courses and/or work experience have met the content requirements of the appropriate doctoral Standards.	Programs must document implementation of a mechanism to ensure that students receiving credit for previous courses and/or work experience have met the content requirements of the appropriate master's Standards.	Programs must document implementation of a mechanism to ensure that students receiving credit for previous courses and/or work experience have met the content requirements of the appropriate occupational therapy assistant Standards.
A.3.5.	Criteria for successful completion of each segment of the educational program and for graduation must be given in advance to each student.	Criteria for successful completion of each segment of the educational program and for graduation must be given in advance to each student.	Criteria for successful completion of each segment of the educational program and for graduation must be given in advance to each student.
A.3.6.	Evaluation content and methods must be consistent with the curriculum design, objectives, and competencies of the didactic, fieldwork, and experiential components of the program.	Evaluation content and methods must be consistent with the curriculum design, objectives, and competencies of the didactic and fieldwork components of the program.	Evaluation content and methods must be consistent with the curriculum design, objectives, and competencies of the didactic and fieldwork components of the program.
A.3.7.	Evaluation must be conducted on a regular basis to provide students and program officials with timely indications of the students' progress and academic standing.	Evaluation must be conducted on a regular basis to provide students and program officials with timely indications of the students' progress and academic standing.	Evaluation must be conducted on a regular basis to provide students and program officials with timely indications of the students' progress and academic standing.
A.3.8.	Students must be informed of and have access to the student support services that are provided to other students in the institution.	Students must be informed of and have access to the student support services that are provided to other students in the institution.	Students must be informed of and have access to the student support services that are provided to other students in the institution.
A.3.9.	Advising related to professional coursework, fieldwork education, and the experiential component of the program must be the responsibility of the occupational therapy faculty.	Advising related to professional coursework and fieldwork education must be the responsibility of the occupational therapy faculty.	Advising related to coursework in the occupational therapy assistant program and fieldwork education must be the responsibility of the occupational therapy assistant faculty.
<b>A.4.0. OPERATIONAL POLICIES</b>			
A.4.1.	All program publications and advertising—including, but not limited to, academic calendars, announcements, catalogs, handbooks, and Web sites—must accurately reflect the program offered.	All program publications and advertising—including, but not limited to, academic calendars, announcements, catalogs, handbooks, and Web sites—must accurately reflect the program offered.	All program publications and advertising—including, but not limited to, academic calendars, announcements, catalogs, handbooks, and Web sites—must accurately reflect the program offered.
A.4.2.	Accurate and current information regarding student and program outcomes must be readily available to the public on the program's Web page. At a minimum, the following data must be reported for the previous 3 years: <ul style="list-style-type: none"> <li>• Total number of program graduates</li> <li>• Graduation rates.</li> </ul>	Accurate and current information regarding student and program outcomes must be readily available to the public on the program's Web page. At a minimum, the following data must be reported for the previous 3 years: <ul style="list-style-type: none"> <li>• Total number of program graduates</li> <li>• Graduation rates.</li> </ul>	Accurate and current information regarding student and program outcomes must be readily available to the public on the program's Web page. At a minimum, the following data must be reported for the previous 3 years: <ul style="list-style-type: none"> <li>• Total number of program graduates,</li> <li>• Graduation rates.</li> </ul>

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	The program must provide the direct link to the National Board for Certification in Occupational Therapy (NBCOT) program data results on the program's home page.	The program must provide the direct link to the National Board for Certification in Occupational Therapy (NBCOT) program data results on the program's home page.	The program must provide the direct link to the National Board for Certification in Occupational Therapy (NBCOT) program data results on the program's home page.
	PROGRAMS MAY USE EITHER CALENDAR YEAR OR ACADEMIC YEAR WHEN PUBLISHING THE TOTAL NUMBER OF PROGRAM GRADUATES AND GRADUATION RATES FROM THE PREVIOUS 3 YEARS AS LONG AS THE TIME FRAME IS CLEARLY DELINEATED. THE NUMBER OF PROGRAM GRADUATES MUST BE TOTALED FOR THE 3-YEAR REPORTING PERIOD. IF THE PROGRAM HAS ONLY ONE OR TWO YEARS OF GRADUATE DATA, THIS MUST BE MADE AVAILABLE AND TOTALED. THE TOTAL MAY BE IN THE FORM OF A NARRATIVE OR WITHIN A GRID. THE TOTAL NUMBER OF PROGRAM GRADUATES AND GRADUATION RATES MUST BE POSTED ON THE PROGRAM'S WEB PAGE. THE PROGRAM MUST PROVIDE AN ACTIVE DIRECT LINK TO THE NBCOT PROGRAM DATA RESULTS ON THE PROGRAM'S HOME PAGE. THE ONLY ACCEPTABLE LINK IS: <a href="https://secure.nbcot.org/data/schoolstats.aspx">https://secure.nbcot.org/data/schoolstats.aspx</a>		
A.4.3.	The program's accreditation status and the name, address, and telephone number of ACOTE must be published in all of the following materials used by the institution: catalog, Web site, and program-related brochures or flyers available to prospective students. A link to <a href="http://www.acoteonline.org">www.acoteonline.org</a> must be provided on the program's home page.	The program's accreditation status and the name, address, and telephone number of ACOTE must be published in all of the following materials used by the institution: catalog, Web site, and program-related brochures or flyers available to prospective students. A link to <a href="http://www.acoteonline.org">www.acoteonline.org</a> must be provided on the program's home page.	The program's accreditation status and the name, address, and telephone number of ACOTE must be published in all of the following materials used by the institution: catalog, Web site, and program-related brochures or flyers available to prospective students. A link to <a href="http://www.acoteonline.org">www.acoteonline.org</a> must be provided on the program's home page.
	SAMPLE WORDING: "THE OCCUPATIONAL THERAPY/OCCUPATIONAL THERAPY ASSISTANT PROGRAM IS ACCREDITED BY THE ACCREDITATION COUNCIL FOR OCCUPATIONAL THERAPY EDUCATION (ACOTE) OF THE AMERICAN OCCUPATIONAL THERAPY ASSOCIATION (AOTA), LOCATED AT 4720 MONTGOMERY LANE, SUITE 200, BETHESDA, MD 20814-3449. ACOTE'S TELEPHONE NUMBER: C/O AOTA, IS (301) 652-AOTA AND ITS WEB ADDRESS IS <a href="http://WWW.ACOTEONLINE.ORG">WWW.ACOTEONLINE.ORG</a> . THE PROGRAM MUST PROVIDE AN ACTIVE LINK TO <a href="http://WWW.ACOTEONLINE.ORG">WWW.ACOTEONLINE.ORG</a> ON THE PROGRAM'S HOME PAGE."		
A.4.4.	All practices within the institution related to faculty, staff, applicants, and students must be nondiscriminatory.	All practices within the institution related to faculty, staff, applicants, and students must be nondiscriminatory.	All practices within the institution related to faculty, staff, applicants, and students must be nondiscriminatory.
	COMPLIANCE WITH STANDARD A.4.4 IS DEMONSTRATED BY THE PRESENCE OF A POLICY ENSURING NONDISCRIMINATORY PRACTICES.		
A.4.5.	Graduation requirements, tuition, and fees must be accurately stated, published, and made known to all applicants. When published fees are subject to change, a statement to that effect must be included.	Graduation requirements, tuition, and fees must be accurately stated, published, and made known to all applicants. When published fees are subject to change, a statement to that effect must be included.	Graduation requirements, tuition, and fees must be accurately stated, published, and made known to all applicants. When published fees are subject to change, a statement to that effect must be included.
A.4.6.	The program or sponsoring institution must have a defined and published policy and procedure for processing student and faculty grievances.	The program or sponsoring institution must have a defined and published policy and procedure for processing student and faculty grievances.	The program or sponsoring institution must have a defined and published policy and procedure for processing student and faculty grievances.
A.4.7.	Policies and procedures for handling complaints against the program must be published and made known. The program must maintain a record of student complaints that includes the nature and disposition of each complaint.	Policies and procedures for handling complaints against the program must be published and made known. The program must maintain a record of student complaints that includes the nature and disposition of each complaint.	Policies and procedures for handling complaints against the program must be published and made known. The program must maintain a record of student complaints that includes the nature and disposition of each complaint.
A.4.8.	Policies and processes for student withdrawal and for refunds of tuition and fees must be published and made known to all applicants.	Policies and processes for student withdrawal and for refunds of tuition and fees must be published and made known to all applicants.	Policies and processes for student withdrawal and for refunds of tuition and fees must be published and made known to all applicants.

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A 4.9.	Policies and procedures for student probation, suspension, and dismissal must be published and made known.	Policies and procedures for student probation, suspension, and dismissal must be published and made known.	Policies and procedures for student probation, suspension, and dismissal must be published and made known.
A 4.10.	Policies and procedures for human-subject research protocol must be published and made known.	Policies and procedures for human-subject research protocol must be published and made known.	Policies and procedures for human-subject research protocol must be published and made known (if applicable to the program).
A 4.11.	Programs must make available to students written policies and procedures regarding appropriate use of equipment and supplies and for all educational activities that have implications for the health and safety of clients, students, and faculty (including infection control and evacuation procedures).	Programs must make available to students written policies and procedures regarding appropriate use of equipment and supplies and for all educational activities that have implications for the health and safety of clients, students, and faculty (including infection control and evacuation procedures).	Programs must make available to students written policies and procedures regarding appropriate use of equipment and supplies and for all educational activities that have implications for the health and safety of clients, students, and faculty (including infection control and evacuation procedures).
A 4.12.	A program admitting students on the basis of ability to benefit (defined by the USDE as admitting students who do not have either a high school diploma or its equivalent) must publicize its objectives, assessment measures, and means of evaluating the student's ability to benefit.	A program admitting students on the basis of ability to benefit (defined by the USDE as admitting students who do not have either a high school diploma or its equivalent) must publicize its objectives, assessment measures, and means of evaluating the student's ability to benefit.	A program admitting students on the basis of ability to benefit (defined by the USDE as admitting students who do not have either a high school diploma or its equivalent) must publicize its objectives, assessment measures, and means of evaluating the student's ability to benefit.
A 4.13.	Documentation of all progression, retention, graduation, certification, and credentialing requirements must be published and made known to applicants. A statement on the program's Web site about the potential impact of a felony conviction on a graduate's eligibility for certification and credentialing must be provided.	Documentation of all progression, retention, graduation, certification, and credentialing requirements must be published and made known to applicants. A statement on the program's Web site about the potential impact of a felony conviction on a graduate's eligibility for certification and credentialing must be provided.	Documentation of all progression, retention, graduation, certification, and credentialing requirements must be published and made known to applicants. A statement on the program's Web site about the potential impact of a felony conviction on a graduate's eligibility for certification and credentialing must be provided.
	SAMPLE WORDING: "GRADUATES OF THE PROGRAM WILL BE ELIGIBLE TO SIT FOR THE NATIONAL CERTIFICATION EXAMINATION FOR THE OCCUPATIONAL THERAPIST, ADMINISTERED BY THE NATIONAL BOARD FOR CERTIFICATION IN OCCUPATIONAL THERAPY (NBCOT), AFTER SUCCESSFUL COMPLETION OF THIS EXAM. THE GRADUATE WILL BE AN OCCUPATIONAL THERAPIST, REGISTERED (OTR). IN ADDITION, MOST STATES REQUIRE LICENSURE TO PRACTICE. HOWEVER, STATE LICENSES ARE USUALLY BASED ON THE RESULTS OF THE NBCOT CERTIFICATION EXAMINATION. A FELONY CONVICTION MAY AFFECT A GRADUATE'S ABILITY TO SIT FOR THE NBCOT CERTIFICATION EXAMINATION OR ATTAIN STATE LICENSURE."		SAMPLE WORDING: "GRADUATES OF THE PROGRAM WILL BE ELIGIBLE TO SIT FOR THE NATIONAL CERTIFICATION EXAMINATION FOR THE OCCUPATIONAL THERAPY ASSISTANT, ADMINISTERED BY THE NATIONAL BOARD FOR CERTIFICATION IN OCCUPATIONAL THERAPY (NBCOT), AFTER SUCCESSFUL COMPLETION OF THIS EXAM. THE GRADUATE WILL BE A CERTIFIED OCCUPATIONAL THERAPY ASSISTANT (COTA). IN ADDITION, MOST STATES REQUIRE LICENSURE TO PRACTICE. HOWEVER, STATE LICENSES ARE USUALLY BASED ON THE RESULTS OF THE NBCOT CERTIFICATION EXAMINATION. A FELONY CONVICTION MAY AFFECT A GRADUATE'S ABILITY TO SIT FOR THE NBCOT CERTIFICATION EXAMINATION OR ATTAIN STATE LICENSURE."
A 4.14.	The program must have a documented and published policy to ensure that students complete all graduation, fieldwork, and experiential component requirements in a timely manner. This policy must	The program must have a documented and published policy to ensure that students complete all graduation and fieldwork requirements in a timely manner. This policy must include a statement that all Level II	The program must have a documented and published policy to ensure that students complete all graduation and fieldwork requirements in a timely manner. This policy must include a statement that all Level II



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	include a statement that all Level II fieldwork and the experiential component of the program must be completed within a time frame established by the program.	fieldwork must be completed within a time frame established by the program.	fieldwork must be completed within a time frame established by the program.
	SAMPLE WORDING: "STUDENTS MUST COMPLETE ALL LEVEL II FIELDWORK AND THE EXPERIENTIAL COMPONENT OF THE PROGRAM WITHIN [XX] MONTHS FOLLOWING COMPLETION OF THE DIDACTIC PORTION OF THE PROGRAM."	SAMPLE WORDING: "STUDENTS MUST COMPLETE ALL LEVEL II FIELDWORK WITHIN [XX] MONTHS FOLLOWING COMPLETION OF THE DIDACTIC PORTION OF THE PROGRAM."	
A.4.15.	Records regarding student admission, enrollment, fieldwork, and achievement must be maintained and kept in a secure setting. Grades and credits for courses must be recorded on students' transcripts and permanently maintained by the sponsoring institution.	Records regarding student admission, enrollment, fieldwork, and achievement must be maintained and kept in a secure setting. Grades and credits for courses must be recorded on students' transcripts and permanently maintained by the sponsoring institution.	Records regarding student admission, enrollment, fieldwork, and achievement must be maintained and kept in a secure setting. Grades and credits for courses must be recorded on students' transcripts and permanently maintained by the sponsoring institution.
<b>A.5.0. STRATEGIC PLAN AND PROGRAM ASSESSMENT</b> For programs that are offered at more than one location, the program's strategic plan, evaluation plan, and results of ongoing evaluation must address each program location as a component of the overall plan.			
A.5.1.	<p>The program must document a current strategic plan that articulates the program's future vision and guides the program development (e.g., faculty recruitment and professional growth, scholarship, changes in the curriculum design, priorities in academic resources, procurement of fieldwork and experiential component sites). A program strategic plan must be for a minimum of a 3-year period and include, but need not be limited to,</p> <ul style="list-style-type: none"> <li>• Evidence that the plan is based on program evaluation and an analysis of external and internal environments.</li> <li>• Long-term goals that address the vision and mission of both the institution and the program, as well as specific needs of the program.</li> <li>• Specific measurable action steps with expected timelines by which the program will reach its long-term goals.</li> <li>• Person(s) responsible for action steps.</li> <li>• Evidence of periodic updating of action steps and long-term goals as they are met or as circumstances change.</li> </ul>	<p>The program must document a current strategic plan that articulates the program's future vision and guides the program development (e.g., faculty recruitment and professional growth, scholarship, changes in the curriculum design, priorities in academic resources, procurement of fieldwork sites). A program strategic plan must be for a minimum of a 3-year period and include, but need not be limited to,</p> <ul style="list-style-type: none"> <li>• Evidence that the plan is based on program evaluation and an analysis of external and internal environments.</li> <li>• Long-term goals that address the vision and mission of both the institution and the program, as well as specific needs of the program.</li> <li>• Specific measurable action steps with expected timelines by which the program will reach its long-term goals.</li> <li>• Person(s) responsible for action steps.</li> <li>• Evidence of periodic updating of action steps and long-term goals as they are met or as circumstances change.</li> </ul>	<p>The program must document a current strategic plan that articulates the program's future vision and guides the program development (e.g., faculty recruitment and professional growth, scholarship, changes in the curriculum design, priorities in academic resources, procurement of fieldwork sites). A program strategic plan must be for a minimum of a 3-year period and include, but need not be limited to,</p> <ul style="list-style-type: none"> <li>• Evidence that the plan is based on program evaluation and an analysis of external and internal environments.</li> <li>• Long-term goals that address the vision and mission of both the institution and the program, as well as specific needs of the program.</li> <li>• Specific measurable action steps with expected timelines by which the program will reach its long-term goals.</li> <li>• Person(s) responsible for action steps.</li> <li>• Evidence of periodic updating of action steps and long-term goals as they are met or as circumstances change.</li> </ul>
THE TIMELINE SHOULD REFLECT THE ACTUAL DUE DATE WHEN THE PROGRAM EXPECTS TO REACH EACH LONG-TERM GOAL. "ANNUALLY" AND "ONGOING" ARE NOT ACCEPTABLE TIMELINES. WHEREAS "DECEMBER 2017" WOULD BE AN ACCEPTABLE TIMELINE.			

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A.5.2.	<p>The program director and each faculty member who teaches two or more courses must have a current written professional growth and development plan. Each plan must contain the signature of the faculty member and supervisor. At a minimum, the plan must include, but need not be limited to,</p> <ul style="list-style-type: none"> <li>Goals to enhance the faculty member's ability to fulfill designated responsibilities (e.g., goals related to currency in areas of teaching responsibility, teaching effectiveness, research, scholarly activity).</li> <li>Specific measurable action steps with expected timelines by which the faculty member will achieve the goals.</li> <li>Evidence of annual updates of action steps and goals as they are met or as circumstances change.</li> <li>Identification of the ways in which the faculty member's professional development plan will contribute to attaining the program's strategic goals.</li> </ul>	<p>The program director and each faculty member who teaches two or more courses must have a current written professional growth and development plan. Each plan must contain the signature of the faculty member and supervisor. At a minimum, the plan must include, but need not be limited to,</p> <ul style="list-style-type: none"> <li>Goals to enhance the faculty member's ability to fulfill designated responsibilities (e.g., goals related to currency in areas of teaching responsibility, teaching effectiveness, research, scholarly activity).</li> <li>Specific measurable action steps with expected timelines by which the faculty member will achieve the goals.</li> <li>Evidence of annual updates of action steps and goals as they are met or as circumstances change.</li> <li>Identification of the ways in which the faculty member's professional development plan will contribute to attaining the program's strategic goals.</li> </ul>	<p>The program director and each faculty member who teaches two or more courses must have a current written professional growth and development plan. Each plan must contain the signature of the faculty member and supervisor. At a minimum, the plan must include, but need not be limited to,</p> <ul style="list-style-type: none"> <li>Goals to enhance the faculty member's ability to fulfill designated responsibilities (e.g., goals related to currency in areas of teaching responsibility, teaching effectiveness, research, scholarly activity).</li> <li>Specific measurable action steps with expected timelines by which the faculty member will achieve the goals.</li> <li>Evidence of annual updates of action steps and goals as they are met or as circumstances change.</li> <li>Identification of the ways in which the faculty member's professional development plan will contribute to attaining the program's strategic goals.</li> </ul>
<p><i>THE PLAN SHOULD REFLECT THE INDIVIDUAL FACULTY MEMBER'S DESIGNATED RESPONSIBILITIES (E.G., EVERY PLAN DOES NOT NEED TO INCLUDE SCHOLARLY ACTIVITY IF THIS IS NOT PART OF THE FACULTY MEMBER'S RESPONSIBILITIES. SIMILARLY, IF THE FACULTY MEMBER'S PRIMARY ROLE IS RESEARCH, HE OR SHE MAY NOT NEED A GOAL RELATED TO TEACHING EFFECTIVENESS). THE TIMELINE SHOULD REFLECT THE ACTUAL DUE DATE WHEN THE FACULTY MEMBER WILL ACHIEVE EACH GOAL. "ANNUALLY" AND "ONGOING" ARE NOT ACCEPTABLE TIMELINES. WHEREAS "DECEMBER 2017" WOULD BE AN ACCEPTABLE TIMELINE.</i></p>			
A.5.3.	<p>Programs must routinely secure and document sufficient qualitative and quantitative information to allow for meaningful analysis about the extent to which the program is meeting its stated goals and objectives. This must include, but need not be limited to,</p> <ul style="list-style-type: none"> <li>Faculty effectiveness in their assigned teaching responsibilities.</li> <li>Students' progression through the program.</li> <li>Student retention rates.</li> <li>Fieldwork and experiential component performance evaluation.</li> <li>Student evaluation of fieldwork and the experiential component experience.</li> <li>Student satisfaction with the program.</li> <li>Graduates' performance on the NBCOT certification exam.</li> <li>Graduates' job placement and performance as determined by employer satisfaction.</li> <li>Graduates' scholarly activity (e.g., presentations, publications, grants obtained, state and national leadership positions, awards).</li> </ul>	<p>Programs must routinely secure and document sufficient qualitative and quantitative information to allow for meaningful analysis about the extent to which the program is meeting its stated goals and objectives. This must include, but need not be limited to,</p> <ul style="list-style-type: none"> <li>Faculty effectiveness in their assigned teaching responsibilities.</li> <li>Students' progression through the program.</li> <li>Student retention rates.</li> <li>Fieldwork performance evaluation.</li> <li>Student evaluation of fieldwork experience.</li> <li>Student satisfaction with the program.</li> <li>Graduates' performance on the NBCOT certification exam.</li> <li>Graduates' job placement and performance as determined by employer satisfaction.</li> </ul>	<p>Programs must routinely secure and document sufficient qualitative and quantitative information to allow for meaningful analysis about the extent to which the program is meeting its stated goals and objectives. This must include, but need not be limited to,</p> <ul style="list-style-type: none"> <li>Faculty effectiveness in their assigned teaching responsibilities.</li> <li>Students' progression through the program.</li> <li>Student retention rates.</li> <li>Fieldwork performance evaluation.</li> <li>Student evaluation of fieldwork experience.</li> <li>Student satisfaction with the program.</li> <li>Graduates' performance on the NBCOT certification exam.</li> <li>Graduates' job placement and performance as determined by employer satisfaction.</li> </ul>

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A.5.4.	Programs must routinely and systematically analyze data to determine the extent to which the program is meeting its stated goals and objectives. An annual report summarizing analysis of data and planned action responses must be maintained.	Programs must routinely and systematically analyze data to determine the extent to which the program is meeting its stated goals and objectives. An annual report summarizing analysis of data and planned action responses must be maintained.	Programs must routinely and systematically analyze data to determine the extent to which the program is meeting its stated goals and objectives. An annual report summarizing analysis of data and planned action responses must be maintained.
<i>THE INTENT OF STANDARD A.5.4 IS THAT PROGRAMS PREPARE AN ANNUAL REPORT THAT SUMMARIZES AN ANALYSIS OF DATA COLLECTED ABOUT THE EXTENT TO WHICH THE PROGRAM IS MEETING ITS STATED GOALS AND OBJECTIVES AS REQUIRED BY STANDARD A.5.3 (E.G., FACULTY EFFECTIVENESS IN THEIR ASSIGNED TEACHING RESPONSIBILITIES, STUDENTS' PROGRESSION THROUGH THE PROGRAM, STUDENT RETENTION RATES, FIELDWORK PERFORMANCE EVALUATION, STUDENT EVALUATION OF FIELDWORK EXPERIENCE, STUDENT SATISFACTION WITH THE PROGRAM, GRADUATES' PERFORMANCE ON THE NBCOT CERTIFICATION EXAM, GRADUATES' JOB PLACEMENT, AND PERFORMANCE AS DETERMINED BY EMPLOYER SATISFACTION)</i>			
A.5.5.	The results of ongoing evaluation must be appropriately reflected in the program's strategic plan, curriculum, and other dimensions of the program.	The results of ongoing evaluation must be appropriately reflected in the program's strategic plan, curriculum, and other dimensions of the program.	The results of ongoing evaluation must be appropriately reflected in the program's strategic plan, curriculum, and other dimensions of the program.
A.5.6.	The average pass rate over the 3 most recent calendar years for graduates attempting the national certification exam within 12 months of graduation from the program must be 80% or higher (regardless of the number of attempts). If a program has less than 25 test takers in the 3 most recent calendar years, the program may include test takers from additional years until it reaches 25 or until the 5 most recent calendar years are included in the total.	The average pass rate over the 3 most recent calendar years for graduates attempting the national certification exam within 12 months of graduation from the program must be 80% or higher (regardless of the number of attempts). If a program has less than 25 test takers in the 3 most recent calendar years, the program may include test takers from additional years until it reaches 25 or until the 5 most recent calendar years are included in the total.	The average pass rate over the 3 most recent calendar years for graduates attempting the national certification exam within 12 months of graduation from the program must be 80% or higher (regardless of the number of attempts). If a program has less than 25 test takers in the 3 most recent calendar years, the program may include test takers from additional years until it reaches 25 or until the 5 most recent calendar years are included in the total.
<i>PROGRAMS THAT DID NOT HAVE CANDIDATES WHO SAT FOR THE EXAM IN EACH OF THE 3 MOST RECENT CALENDAR YEARS MUST MEET THE REQUIRED 80% PASS RATE EACH YEAR UNTIL DATA FOR 3 CALENDAR YEARS ARE AVAILABLE.</i>			
<b>A.6.0. CURRICULUM FRAMEWORK</b> <b>The curriculum framework is a description of the program that includes the program's mission, philosophy, and curriculum design.</b>			
A.6.1.	The curriculum must ensure preparation to practice as a generalist with a broad exposure to current practice settings (e.g., school, hospital, community, long-term care) and emerging practice areas (as defined by the program). The curriculum must prepare students to work with a variety of populations including, but not limited to, children, adolescents, adults, and elderly persons in areas of physical and mental health.	The curriculum must include preparation for practice as a generalist with a broad exposure to current practice settings (e.g., school, hospital, community, long-term care) and emerging practice areas (as defined by the program). The curriculum must prepare students to work with a variety of populations including, but not limited to, children, adolescents, adults, and elderly persons in areas of physical and mental health.	The curriculum must include preparation for practice as a generalist with a broad exposure to current practice settings (e.g., school, hospital, community, long-term care) and emerging practice areas (as defined by the program). The curriculum must prepare students to work with a variety of populations including, but not limited to, children, adolescents, adults, and elderly persons in areas of physical and mental health.
A.6.2.	The curriculum must include course objectives and learning activities demonstrating preparation beyond a generalist level in, but not limited to, practice skills, research skills, administration, professional development, leadership, advocacy, and theory.	<i>(No related Standard)</i>	<i>(No related Standard)</i>

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A.6.3.	The occupational therapy doctoral degree must be awarded after a period of study such that the total time to the degree, including both preprofessional and professional preparation, equals at least 6 FTE academic years. The program must document a system and rationale for ensuring that the length of study of the program is appropriate to the expected learning and competence of the graduate.	The program must document a system and rationale for ensuring that the length of study of the program is appropriate to the expected learning and competence of the graduate.	The program must document a system and rationale for ensuring that the length of study of the program is appropriate to the expected learning and competence of the graduate.
A.6.4.	The curriculum must include application of advanced knowledge to practice through a combination of experiential activities and a culminating project.	<i>(No related Standard)</i>	<i>(No related Standard)</i>
A.6.5.	The statement of philosophy of the occupational therapy program must reflect the current published philosophy of the profession and must include a statement of the program's fundamental beliefs about human beings and how they learn.	The statement of philosophy of the occupational therapy program must reflect the current published philosophy of the profession and must include a statement of the program's fundamental beliefs about human beings and how they learn.	The statement of philosophy of the occupational therapy assistant program must reflect the current published philosophy of the profession and must include a statement of the program's fundamental beliefs about human beings and how they learn.
A.6.6.	The statement of the mission of the occupational therapy program must be consistent with and supportive of the mission of the sponsoring institution. The program's mission statement should explain the unique nature of the program and how it helps fulfill or advance the mission of the sponsoring institution, including religious missions.	The statement of the mission of the occupational therapy program must be consistent with and supportive of the mission of the sponsoring institution. The program's mission statement should explain the unique nature of the program and how it helps fulfill or advance the mission of the sponsoring institution, including religious missions.	The statement of the mission of the occupational therapy assistant program must be consistent with and supportive of the mission of the sponsoring institution. The program's mission statement should explain the unique nature of the program and how it helps fulfill or advance the mission of the sponsoring institution, including religious missions.
A.6.7.	The curriculum design must reflect the mission and philosophy of both the occupational therapy program and the institution and must provide the basis for program planning, implementation, and evaluation. The design must identify curricular threads and educational goals and describe the selection of the content, scope, and sequencing of coursework.	The curriculum design must reflect the mission and philosophy of both the occupational therapy program and the institution and must provide the basis for program planning, implementation, and evaluation. The design must identify curricular threads and educational goals and describe the selection of the content, scope, and sequencing of coursework.	The curriculum design must reflect the mission and philosophy of both the occupational therapy assistant program and the institution and must provide the basis for program planning, implementation, and evaluation. The design must identify curricular threads and educational goals and describe the selection of the content, scope, and sequencing of coursework.
A.6.8.	The program must have clearly documented assessment measures by which students are regularly evaluated on their acquisition of knowledge, skills, attitudes, and competencies required for graduation.	The program must have clearly documented assessment measures by which students are regularly evaluated on their acquisition of knowledge, skills, attitudes, and competencies required for graduation.	The program must have clearly documented assessment measures by which students are regularly evaluated on their acquisition of knowledge, skills, attitudes, and competencies required for graduation.



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A.6.9.	The program must have written syllabi for each course that include course objectives and learning activities that, in total, reflect all course content required by the Standards. Instructional methods (e.g., presentations, demonstrations, discussion) and materials used to accomplish course objectives must be documented. Programs must also demonstrate the consistency between course syllabi and the curriculum design.	The program must have written syllabi for each course that include course objectives and learning activities that, in total, reflect all course content required by the Standards. Instructional methods (e.g., presentations, demonstrations, discussion) and materials used to accomplish course objectives must be documented. Programs must also demonstrate the consistency between course syllabi and the curriculum design.	The program must have written syllabi for each course that include course objectives and learning activities that, in total, reflect all course content required by the Standards. Instructional methods (e.g., presentations, demonstrations, discussion) and materials used to accomplish course objectives must be documented. Programs must also demonstrate the consistency between course syllabi and the curriculum design.
LEVEL II FIELDWORK SYLLABI MAY NOT BE USED TO DOCUMENT COMPLIANCE WITH A SECTION B CONTENT STANDARD. INFORMATION ON THE RELATIONSHIP OF THE COURSES TO THE CURRICULUM DESIGN MUST BE MADE AVAILABLE TO STUDENTS. THIS INFORMATION MAY BE INCLUDED ON THE COURSE SYLLABI OR WITHIN ANOTHER DOCUMENT WHICH IS READILY AVAILABLE TO STUDENTS.			
<b>SECTION B: CONTENT REQUIREMENTS</b> The content requirements are written as expected student outcomes. Faculty are responsible for developing learning activities and evaluation methods to document that students meet these outcomes.			
B.1.0.	<b>FOUNDATIONAL CONTENT REQUIREMENTS</b> Program content must be based on a broad foundation in the liberal arts and sciences. A strong foundation in the biological, physical, social, and behavioral sciences supports an understanding of occupation across the lifespan. If the content of the Standard is met through prerequisite coursework, the application of foundational content in sciences must also be evident in professional coursework. The student will be able to		<b>FOUNDATIONAL CONTENT REQUIREMENTS</b> Program content must be based on a broad foundation in the liberal arts and sciences. A strong foundation in the biological, physical, social, and behavioral sciences supports an understanding of occupation across the lifespan. If the content of the Standard is met through prerequisite coursework, the application of foundational content in sciences must also be evident in professional coursework. The student will be able to
B.1.1.	Demonstrate knowledge and understanding of the structure and function of the human body to include the biological and physical sciences. Course content must include, but is not limited to, biology, anatomy, physiology, neuroscience, and kinesiology or biomechanics.	Demonstrate knowledge and understanding of the structure and function of the human body to include the biological and physical sciences. Course content must include, but is not limited to, biology, anatomy, physiology, neuroscience, and kinesiology or biomechanics.	Demonstrate knowledge and understanding of the structure and function of the human body to include the biological and physical sciences. Course content must include, but is not limited to, anatomy, physiology, and biomechanics.
B.1.2.	Demonstrate knowledge and understanding of human development throughout the lifespan (infants, children, adolescents, adults, and older adults). Course content must include, but is not limited to, developmental psychology.	Demonstrate knowledge and understanding of human development throughout the lifespan (infants, children, adolescents, adults, and older adults). Course content must include, but is not limited to, developmental psychology.	Demonstrate knowledge and understanding of human development throughout the lifespan (infants, children, adolescents, adults, and older adults). Course content must include, but is not limited to, developmental psychology.
B.1.3.	Demonstrate knowledge and understanding of the concepts of human behavior to include the behavioral sciences, social sciences, and occupational science. Course content must include, but is not limited to, introductory psychology, abnormal psychology, and introductory sociology or introductory anthropology.	Demonstrate knowledge and understanding of the concepts of human behavior to include the behavioral sciences, social sciences, and occupational science. Course content must include, but is not limited to, introductory psychology, abnormal psychology, and introductory sociology or introductory anthropology.	Demonstrate knowledge and understanding of the concepts of human behavior to include the behavioral and social sciences (e.g., principles of psychology, sociology, abnormal psychology) and occupational science.

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B.1.4.	Apply knowledge of the role of sociocultural, socioeconomic, and diversity factors and lifestyle choices in contemporary society to meet the needs of individuals and communities. Course content must include, but is not limited to, introductory psychology, abnormal psychology, and introductory sociology or introductory anthropology.	Demonstrate knowledge and appreciation of the role of sociocultural, socioeconomic, and diversity factors and lifestyle choices in contemporary society. Course content must include, but is not limited to, introductory psychology, abnormal psychology, and introductory sociology or introductory anthropology.	Demonstrate knowledge and appreciation of the role of sociocultural, socioeconomic, and diversity factors and lifestyle choices in contemporary society (e.g., principles of psychology, sociology, and abnormal psychology).
B.1.5.	Demonstrate an understanding of the ethical and practical considerations that affect the health and wellness needs of those who are experiencing or are at risk for social injustice, occupational deprivation, and disparity in the receipt of services.	Demonstrate an understanding of the ethical and practical considerations that affect the health and wellness needs of those who are experiencing or are at risk for social injustice, occupational deprivation, and disparity in the receipt of services.	Articulate the ethical and practical considerations that affect the health and wellness needs of those who are experiencing or are at risk for social injustice, occupational deprivation, and disparity in the receipt of services.
B.1.6.	Demonstrate knowledge of global social issues and prevailing health and welfare needs of populations with or at risk for disabilities and chronic health conditions.	Demonstrate knowledge of global social issues and prevailing health and welfare needs of populations with or at risk for disabilities and chronic health conditions.	Demonstrate knowledge of global social issues and prevailing health and welfare needs of populations with or at risk for disabilities and chronic health conditions.
B.1.7.	Apply quantitative statistics and qualitative analysis to interpret tests, measurements, and other data for the purpose of establishing and/or delivering evidence-based practice.	Demonstrate the ability to use statistics to interpret tests and measurements for the purpose of delivering evidence-based practice.	Articulate the importance of using statistics, tests, and measurements for the purpose of delivering evidence-based practice.
B.1.8.	Demonstrate an understanding of the use of technology to support performance, participation, health and well-being. This technology may include, but is not limited to, electronic documentation systems, distance communication, virtual environments, and telehealth technology.	Demonstrate an understanding of the use of technology to support performance, participation, health and well-being. This technology may include, but is not limited to, electronic documentation systems, distance communication, virtual environments, and telehealth technology.	Demonstrate an understanding of the use of technology to support performance, participation, health and well-being. This technology may include, but is not limited to, electronic documentation systems, distance communication, virtual environments, and telehealth technology.
<b>B.2.0. BASIC TENETS OF OCCUPATIONAL THERAPY</b> <b>Coursework must facilitate development of the performance criteria listed below. The student will be able to</b>			
B.2.1.	Explain the history and philosophical base of the profession of occupational therapy and its importance in meeting society's current and future occupational needs.	Articulate an understanding of the importance of the history and philosophical base of the profession of occupational therapy.	Articulate an understanding of the importance of the history and philosophical base of the profession of occupational therapy.
B.2.2.	Explain the meaning and dynamics of occupation and activity, including the interaction of areas of occupation, performance skills, performance patterns, activity demands, context(s) and environments, and client factors.	Explain the meaning and dynamics of occupation and activity, including the interaction of areas of occupation, performance skills, performance patterns, activity demands, context(s) and environments, and client factors.	Describe the meaning and dynamics of occupation and activity, including the interaction of areas of occupation, performance skills, performance patterns, activity demands, context(s) and environments, and client factors.
B.2.3.	Articulate to consumers, potential employers, colleagues, third-party payers, regulatory boards, policymakers, other audiences, and the general public both the unique nature of occupation as viewed by the profession of occupational therapy and	Articulate to consumers, potential employers, colleagues, third-party payers, regulatory boards, policymakers, other audiences, and the general public both the unique nature of occupation as viewed by the profession of occupational therapy and	Articulate to consumers, potential employers, colleagues, third-party payers, regulatory boards, policymakers, other audiences, and the general public both the unique nature of occupation as viewed by the profession of occupational therapy and

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	the value of occupation to support performance, participation, health, and well-being.	the value of occupation to support performance, participation, health, and well-being.	the value of occupation support performance, participation, health, and well-being.
B.2.4.	Articulate the importance of balancing areas of occupation with the achievement of health and wellness for the clients.	Articulate the importance of balancing areas of occupation with the achievement of health and wellness for the clients.	Articulate the importance of balancing areas of occupation with the achievement of health and wellness for the clients.
B.2.5.	Explain the role of occupation in the promotion of health and the prevention of disease and disability for the individual, family, and society.	Explain the role of occupation in the promotion of health and the prevention of disease and disability for the individual, family, and society.	Explain the role of occupation in the promotion of health and the prevention of disease and disability for the individual, family, and society.
B.2.6.	Analyze the effects of heritable diseases, genetic conditions, disability, trauma, and injury to the physical and mental health and occupational performance of the individual.	Analyze the effects of heritable diseases, genetic conditions, disability, trauma, and injury to the physical and mental health and occupational performance of the individual.	Understand the effects of heritable diseases, genetic conditions, disability, trauma, and injury to the physical and mental health and occupational performance of the individual.
B.2.7.	Demonstrate task analysis in areas of occupation, performance skills, performance patterns, activity demands, context(s) and environments, and client factors to formulate an intervention plan.	Demonstrate task analysis in areas of occupation, performance skills, performance patterns, activity demands, context(s) and environments, and client factors to formulate an intervention plan.	Demonstrate task analysis in areas of occupation, performance skills, performance patterns, activity demands, context(s) and environments, and client factors to implement the intervention plan.
B.2.8.	Use sound judgment in regard to safety of self and others and adhere to safety regulations throughout the occupational therapy process as appropriate to the setting and scope of practice.	Use sound judgment in regard to safety of self and others and adhere to safety regulations throughout the occupational therapy process as appropriate to the setting and scope of practice.	Use sound judgment in regard to safety of self and others and adhere to safety regulations throughout the occupational therapy process as appropriate to the setting and scope of practice.
B.2.9.	Express support for the quality of life, well-being, and occupation of the individual, group, or population to promote physical and mental health and prevention of injury and disease considering the context (e.g., cultural, personal, temporal, virtual) and environment.	Express support for the quality of life, well-being, and occupation of the individual, group, or population to promote physical and mental health and prevention of injury and disease considering the context (e.g., cultural, personal, temporal, virtual) and environment.	Express support for the quality of life, well-being, and occupation of the individual, group, or population to promote physical and mental health and prevention of injury and disease considering the context (e.g., cultural, personal, temporal, virtual) and environment.
B.2.10.	Use clinical reasoning to explain the rationale for and use of compensatory strategies when desired life tasks cannot be performed.	Use clinical reasoning to explain the rationale for and use of compensatory strategies when desired life tasks cannot be performed.	Explain the need for and use of compensatory strategies when desired life tasks cannot be performed.
B.2.11.	Analyze, synthesize, evaluate, and apply models of occupational performance.	Analyze, synthesize, and apply models of occupational performance.	Identify interventions consistent with models of occupational performance.
<b>B.3.0. OCCUPATIONAL THERAPY THEORETICAL PERSPECTIVES</b> <b>The program must facilitate the development of the performance criteria listed below. The student will be able to</b>			
B.3.1.	Evaluate and apply theories that underlie the practice of occupational therapy.	Apply theories that underlie the practice of occupational therapy.	Describe basic features of the theories that underlie the practice of occupational therapy.
B.3.2.	Compare, contrast, and integrate a variety of models of practice and frames of reference that are used in occupational therapy.	Compare and contrast models of practice and frames of reference that are used in occupational therapy.	Describe basic features of models of practice and frames of reference that are used in occupational therapy.

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B.3.3.	Use theories, models of practice, and frames of reference to guide and inform evaluation and intervention.	Use theories, models of practice, and frames of reference to guide and inform evaluation and intervention.	(No related Standard)
B.3.4.	Analyze and discuss how occupational therapy history, occupational therapy theory, and the sociopolitical climate influence and are influenced by practice.	Analyze and discuss how occupational therapy history, occupational therapy theory, and the sociopolitical climate influence practice.	Discuss how occupational therapy history and occupational therapy theory, and the sociopolitical climate influence practice.
B.3.5.	Apply theoretical constructs to evaluation and intervention with various types of clients in a variety of practice contexts and environments, including population-based approaches, to analyze and effect meaningful occupation outcomes.	Apply theoretical constructs to evaluation and intervention with various types of clients in a variety of practice contexts and environments to analyze and effect meaningful occupation outcomes.	(No related Standard)
B.3.6.	Articulate the process of theory development in occupational therapy and its desired impact and influence on society.	Discuss the process of theory development and its importance to occupational therapy.	(No related Standard)
<b>B.4.0.</b>	<b>SCREENING, EVALUATION, AND REFERRAL</b> The process of screening, evaluation, referral, and diagnosis as related to occupational performance and participation must be culturally relevant and based on theoretical perspectives, models of practice, frames of reference, and available evidence. In addition, this process must consider the continuum of need from individuals to populations. The program must facilitate development of the performance criteria listed below. The student will be able to	<b>SCREENING, EVALUATION, AND REFERRAL</b> The process of screening, evaluation, and referral as related to occupational performance and participation must be culturally relevant and based on theoretical perspectives, models of practice, frames of reference, and available evidence. In addition, this process must consider the continuum of need from individuals to populations. The program must facilitate development of the performance criteria listed below. The student will be able to	<b>SCREENING AND EVALUATION</b> The process of screening and evaluation as related to occupational performance and participation must be conducted under the supervision of and in cooperation with the occupational therapist and must be culturally relevant and based on theoretical perspectives, models of practice, frames of reference, and available evidence. The program must facilitate development of the performance criteria listed below. The student will be able to
B.4.1.	Use standardized and nonstandardized screening and assessment tools to determine the need for occupational therapy intervention. These tools include, but are not limited to, specified screening tools; assessments; skilled observations; occupational histories; consultations with other professionals; and interviews with the client, family, significant others, and community.	Use standardized and nonstandardized screening and assessment tools to determine the need for occupational therapy intervention. These tools include, but are not limited to, specified screening tools; assessments; skilled observations; occupational histories; consultations with other professionals; and interviews with the client, family, significant others, and community.	Gather and share data for the purpose of screening and evaluation using methods including, but not limited to, specified screening tools; assessments; skilled observations; occupational histories; consultations with other professionals; and interviews with the client, family, and significant others.
B.4.2.	Select appropriate assessment tools on the basis of client needs, contextual factors, and psychometric properties of tests. These must be culturally relevant, based on available evidence, and incorporate use of occupation in the assessment process.	Select appropriate assessment tools on the basis of client needs, contextual factors, and psychometric properties of tests. These must be culturally relevant, based on available evidence, and incorporate use of occupation in the assessment process.	Administer selected assessments using appropriate procedures and protocols (including standardized formats) and use occupation for the purpose of assessment.
B.4.3.	Use appropriate procedures and protocols (including standardized formats) when administering assessments.	Use appropriate procedures and protocols (including standardized formats) when administering assessments.	(No related Standard)



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B.4.4.	<p>Evaluate client(s)' occupational performance in activities of daily living (ADLs), instrumental activities of daily living (IADLs), education, work, play, rest, sleep, leisure, and social participation. Evaluation of occupational performance using standardized and nonstandardized assessment tools includes</p> <ul style="list-style-type: none"> <li>The occupational profile, including participation in activities that are meaningful and necessary for the client to carry out roles in home, work, and community environments.</li> <li>Client factors, including values, beliefs, spirituality, body functions (e.g., neuromuscular, sensory and pain, visual, perceptual, cognitive, mental) and body structures (e.g., cardiovascular, digestive, nervous, genitourinary, integumentary systems).</li> <li>Performance patterns (e.g., habits, routines, rituals, roles).</li> <li>Context (e.g., cultural, personal, temporal, virtual) and environment (e.g., physical, social).</li> <li>Performance skills, including motor and praxis skills, sensory-perceptual skills, emotional regulation skills, cognitive skills, and communication and social skills.</li> </ul>	<p>Evaluate client(s)' occupational performance in activities of daily living (ADLs), instrumental activities of daily living (IADLs), education, work, play, rest, sleep, leisure, and social participation. Evaluation of occupational performance using standardized and nonstandardized assessment tools includes</p> <ul style="list-style-type: none"> <li>The occupational profile, including participation in activities that are meaningful and necessary for the client to carry out roles in home, work, and community environments.</li> <li>Client factors, including values, beliefs, spirituality, body functions (e.g., neuromuscular, sensory and pain, visual, perceptual, cognitive, mental) and body structures (e.g., cardiovascular, digestive, nervous, genitourinary, integumentary systems).</li> <li>Performance patterns (e.g., habits, routines, rituals, roles).</li> <li>Context (e.g., cultural, personal, temporal, virtual) and environment (e.g., physical, social).</li> <li>Performance skills, including motor and praxis skills, sensory-perceptual skills, emotional regulation skills, cognitive skills, and communication and social skills.</li> </ul>	<p>Gather and share data for the purpose of evaluating client(s)' occupational performance in activities of daily living (ADLs), instrumental activities of daily living (IADLs), education, work, play, rest, sleep, leisure, and social participation. Evaluation of occupational performance includes</p> <ul style="list-style-type: none"> <li>The occupational profile, including participation in activities that are meaningful and necessary for the client to carry out roles in home, work, and community environments.</li> <li>Client factors, including values, beliefs, spirituality, body functions (e.g., neuromuscular, sensory and pain, visual, perceptual, cognitive, mental) and body structures (e.g., cardiovascular, digestive, nervous, genitourinary, integumentary systems).</li> <li>Performance patterns (e.g., habits, routines, rituals, roles).</li> <li>Context (e.g., cultural, personal, temporal, virtual) and environment (e.g., physical, social).</li> <li>Performance skills, including motor and praxis skills, sensory-perceptual skills, emotional regulation skills, cognitive skills, and communication and social skills.</li> </ul>
B.4.5.	Compare and contrast the role of the occupational therapist and occupational therapy assistant in the screening and evaluation process along with the importance of and rationale for supervision and collaborative work between the occupational therapist and occupational therapy assistant in that process.	Compare and contrast the role of the occupational therapist and occupational therapy assistant in the screening and evaluation process along with the importance of and rationale for supervision and collaborative work between the occupational therapist and occupational therapy assistant in that process.	Articulate the role of the occupational therapy assistant and occupational therapist in the screening and evaluation process along with the importance of and rationale for supervision and collaborative work between the occupational therapy assistant and occupational therapist in that process.
B.4.6.	Interpret criterion-referenced and norm-referenced standardized test scores on the basis of an understanding of sampling, normative data, standard and criterion scores, reliability, and validity.	Interpret criterion-referenced and norm-referenced standardized test scores on the basis of an understanding of sampling, normative data, standard and criterion scores, reliability, and validity.	(No related Standard)
B.4.7.	Consider factors that might bias assessment results, such as culture, disability status, and situational variables related to the individual and context.	Consider factors that might bias assessment results, such as culture, disability status, and situational variables related to the individual and context.	(No related Standard)
B.4.8.	Interpret the evaluation data in relation to accepted terminology of the profession, relevant theoretical frameworks, and interdisciplinary knowledge.	Interpret the evaluation data in relation to accepted terminology of the profession and relevant theoretical frameworks.	(No related Standard)

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B 4.9.	Evaluate appropriateness and discuss mechanisms for referring clients for additional evaluation to specialists who are internal and external to the profession.	Evaluate appropriateness and discuss mechanisms for referring clients for additional evaluation to specialists who are internal and external to the profession.	Identify when to recommend to the occupational therapist the need for referring clients for additional evaluation.
B 4.10.	Document occupational therapy services to ensure accountability of service provision and to meet standards for reimbursement of services, adhering to the requirements of applicable facility, local, state, federal, and reimbursement agencies. Documentation must effectively communicate the need and rationale for occupational therapy services.	Document occupational therapy services to ensure accountability of service provision and to meet standards for reimbursement of services, adhering to the requirements of applicable facility, local, state, federal, and reimbursement agencies. Documentation must effectively communicate the need and rationale for occupational therapy services.	Document occupational therapy services to ensure accountability of service provision and to meet standards for reimbursement of services, adhering to the requirements of applicable facility, local, state, federal, and reimbursement agencies. Documentation must effectively communicate the need and rationale for occupational therapy services.
B 4.11.	Articulate screening and evaluation processes for all practice areas. Use evidence-based reasoning to analyze, synthesize, evaluate, and diagnose problems related to occupational performance and participation.	(No related Standard)	(No related Standard)
<b>B.5.0.</b>	<b>INTERVENTION PLAN: FORMULATION AND IMPLEMENTATION</b> The process of formulation and implementation of the therapeutic intervention plan to facilitate occupational performance and participation must be culturally relevant; reflective of current and emerging occupational therapy practice; based on available evidence; and based on theoretical perspectives, models of practice, and frames of reference. In addition, this process must consider the continuum of need from individual-to population-based interventions. The program must facilitate development of the performance criteria listed below. The student will be able to	<b>INTERVENTION PLAN: FORMULATION AND IMPLEMENTATION</b> The process of formulation and implementation of the therapeutic intervention plan to facilitate occupational performance and participation must be culturally relevant; reflective of current occupational therapy practice; based on available evidence; and based on theoretical perspectives, models of practice, and frames of reference. The program must facilitate development of the performance criteria listed below. The student will be able to	<b>INTERVENTION AND IMPLEMENTATION</b> The process of intervention to facilitate occupational performance and participation must be done under the supervision of and in cooperation with the occupational therapist and must be culturally relevant, reflective of current occupational therapy practice, and based on available evidence. The program must facilitate development of the performance criteria listed below. The student will be able to
B.5.1.	Use evaluation findings to diagnose occupational performance and participation based on appropriate theoretical approaches, models of practice, frames of reference, and interdisciplinary knowledge. Develop occupation-based intervention plans and strategies (including goals and methods to achieve them) on the basis of the stated needs of the client as well as data gathered during the evaluation process in collaboration with the client and others. Intervention plans and strategies must be culturally relevant, reflective of current occupational therapy practice, and based on available evidence. Interventions address the following components: <ul style="list-style-type: none"> <li>The occupational profile, including participation in activities that are meaningful and necessary for</li> </ul>	Use evaluation findings based on appropriate theoretical approaches, models of practice, and frames of reference to develop occupation-based intervention plans and strategies (including goals and methods to achieve them) on the basis of the stated needs of the client as well as data gathered during the evaluation process in collaboration with the client and others. Intervention plans and strategies must be culturally relevant, reflective of current occupational therapy practice, and based on available evidence. Interventions address the following components: <ul style="list-style-type: none"> <li>The occupational profile, including participation in activities that are meaningful and necessary for the client to carry out roles in home, work, and community environments.</li> </ul>	Assist with the development of occupation-based intervention plans and strategies (including goals and methods to achieve them) on the basis of the stated needs of the client as well as data gathered during the evaluation process in collaboration with the client and others. Intervention plans and strategies must be culturally relevant, reflective of current occupational therapy practice, and based on available evidence. Interventions address the following components: <ul style="list-style-type: none"> <li>The occupational profile, including participation in activities that are meaningful and necessary for the client to carry out roles in home, work, and community environments.</li> <li>Client factors, including values, beliefs,</li> </ul>

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	<p>the client to carry out roles in home, work, and community environments.</p> <ul style="list-style-type: none"> <li>Client factors, including values, beliefs, spirituality, body functions (e.g., neuromuscular, sensory and pain, visual, perceptual, cognitive, mental) and body structures (e.g., cardiovascular, digestive, nervous, genitourinary, integumentary systems).</li> <li>Performance patterns (e.g., habits, routines, rituals, roles).</li> <li>Context (e.g., cultural, personal, temporal, virtual) and environment (e.g., physical, social).</li> <li>Performance skills, including motor and praxis skills, sensory-perceptual skills, emotional regulation skills, cognitive skills, and communication and social skills.</li> </ul>	<ul style="list-style-type: none"> <li>Client factors, including values, beliefs, spirituality, body functions (e.g., neuromuscular, sensory and pain, visual, perceptual, cognitive, mental) and body structures (e.g., cardiovascular, digestive, nervous, genitourinary, integumentary systems).</li> <li>Performance patterns (e.g., habits, routines, rituals, roles).</li> <li>Context (e.g., cultural, personal, temporal, virtual) and environment (e.g., physical, social).</li> <li>Performance skills, including motor and praxis skills, sensory-perceptual skills, emotional regulation skills, cognitive skills, and communication and social skills.</li> </ul>	<p>spirituality, body functions (e.g., neuromuscular, sensory and pain, visual, perceptual, cognitive, mental) and body structures (e.g., cardiovascular, digestive, nervous, genitourinary, integumentary systems).</p> <ul style="list-style-type: none"> <li>Performance patterns (e.g., habits, routines, rituals, roles).</li> <li>Context (e.g., cultural, personal, temporal, virtual) and environment (e.g., physical, social).</li> <li>Performance skills, including motor and praxis skills, sensory-perceptual skills, emotional regulation skills, cognitive skills, and communication and social skills.</li> </ul>
B.5.2.	Select and provide direct occupational therapy interventions and procedures to enhance safety, health and wellness, and performance in ADLs, IADLs, education, work, play, rest, sleep, leisure, and social participation.	Select and provide direct occupational therapy interventions and procedures to enhance safety, health and wellness, and performance in ADLs, IADLs, education, work, play, rest, sleep, leisure, and social participation.	Select and provide direct occupational therapy interventions and procedures to enhance safety, health and wellness, and performance in ADLs, IADLs, education, work, play, rest, sleep, leisure, and social participation.
B.5.3.	Provide therapeutic use of occupation, exercises, and activities (e.g., occupation-based intervention; purposeful activity, preparatory methods).	Provide therapeutic use of occupation, exercises, and activities (e.g., occupation-based intervention; purposeful activity, preparatory methods).	Provide therapeutic use of occupation, exercises, and activities (e.g., occupation-based intervention; purposeful activity, preparatory methods).
B.5.4.	Design and implement group interventions based on principles of group development and group dynamics across the lifespan.	Design and implement group interventions based on principles of group development and group dynamics across the lifespan.	Implement group interventions based on principles of group development and group dynamics across the lifespan.
B.5.5.	Provide training in self-care, self-management, health management and maintenance, home management, and community and work integration.	Provide training in self-care, self-management, health management and maintenance, home management, and community and work integration.	Provide training in self-care, self-management, health management and maintenance, home management, and community and work integration.
B.5.6.	Provide development, remediation, and compensation for physical, mental, cognitive, perceptual, neuromuscular, behavioral skills, and sensory functions (e.g., vision, tactile, auditory, gustatory, olfactory, pain, temperature, pressure, vestibular, proprioception).	Provide development, remediation, and compensation for physical, mental, cognitive, perceptual, neuromuscular, behavioral skills, and sensory functions (e.g., vision, tactile, auditory, gustatory, olfactory, pain, temperature, pressure, vestibular, proprioception).	Provide development, remediation, and compensation for physical, mental, cognitive, perceptual, neuromuscular, behavioral skills, and sensory functions (e.g., vision, tactile, auditory, gustatory, olfactory, pain, temperature, pressure, vestibular, proprioception).
B.5.7.	Demonstrate therapeutic use of self, including one's personality, insights, perceptions, and judgments, as part of the therapeutic process in both individual and group interaction.	Demonstrate therapeutic use of self, including one's personality, insights, perceptions, and judgments, as part of the therapeutic process in both individual and group interaction.	Demonstrate therapeutic use of self, including one's personality, insights, perceptions, and judgments, as part of the therapeutic process in both individual and group interaction.

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B.5.8.	Develop and implement intervention strategies to remediate and/or compensate for cognitive deficits that affect occupational performance.	Develop and implement intervention strategies to remediate and/or compensate for cognitive deficits that affect occupational performance.	Implement intervention strategies to remediate and/or compensate for cognitive deficits that affect occupational performance.
B.5.9.	Evaluate and adapt processes or environments (e.g., home, work, school, community) applying ergonomic principles and principles of environmental modification.	Evaluate and adapt processes or environments (e.g., home, work, school, community) applying ergonomic principles and principles of environmental modification.	Adapt environments (e.g., home, work, school, community) and processes, including the application of ergonomic principles.
B.5.10.	Articulate principles of and be able to design, fabricate, apply, fit, and train in assistive technologies and devices (e.g., electronic aids to daily living, seating and positioning systems) used to enhance occupational performance and foster participation and well-being.	Articulate principles of and be able to design, fabricate, apply, fit, and train in assistive technologies and devices (e.g., electronic aids to daily living, seating and positioning systems) used to enhance occupational performance and foster participation and well-being.	Articulate principles of and demonstrate strategies with assistive technologies and devices (e.g., electronic aids to daily living, seating and positioning systems) used to enhance occupational performance and foster participation and well-being.
B.5.11.	Provide design, fabrication, application, fitting, and training in orthotic devices used to enhance occupational performance and participation. Train in the use of prosthetic devices, based on scientific principles of kinesiology, biomechanics, and physics.	Provide design, fabrication, application, fitting, and training in orthotic devices used to enhance occupational performance and participation. Train in the use of prosthetic devices, based on scientific principles of kinesiology, biomechanics, and physics.	Provide fabrication, application, fitting, and training in orthotic devices used to enhance occupational performance and participation, and training in the use of prosthetic devices.
B.5.12.	Provide recommendations and training in techniques to enhance functional mobility, including physical transfers, wheelchair management, and mobility devices.	Provide recommendations and training in techniques to enhance functional mobility, including physical transfers, wheelchair management, and mobility devices.	Provide training in techniques to enhance functional mobility, including physical transfers, wheelchair management, and mobility devices.
B.5.13.	Provide recommendations and training in techniques to enhance community mobility, including public transportation, community access, and issues related to driver rehabilitation.	Provide recommendations and training in techniques to enhance community mobility, including public transportation, community access, and issues related to driver rehabilitation.	Provide training in techniques to enhance community mobility, including public transportation, community access, and issues related to driver rehabilitation.
B.5.14.	Provide management of feeding, eating, and swallowing to enable performance (including the process of bringing food or fluids from the plate or cup to the mouth, the ability to keep and manipulate food or fluid in the mouth, and swallowing assessment and management) and train others in precautions and techniques while considering client and contextual factors.	Provide management of feeding, eating, and swallowing to enable performance (including the process of bringing food or fluids from the plate or cup to the mouth, the ability to keep and manipulate food or fluid in the mouth, and swallowing assessment and management) and train others in precautions and techniques while considering client and contextual factors.	Enable feeding and eating performance (including the process of bringing food or fluids from the plate or cup to the mouth, the ability to keep and manipulate food or fluid in the mouth, and the initiation of swallowing) and train others in precautions and techniques while considering client and contextual factors.
B.5.15.	Demonstrate safe and effective application of superficial thermal and mechanical modalities as a preparatory measure to manage pain and improve occupational performance, including foundational knowledge, underlying principles, indications, contraindications, and precautions.	Demonstrate safe and effective application of superficial thermal and mechanical modalities as a preparatory measure to manage pain and improve occupational performance, including foundational knowledge, underlying principles, indications, contraindications, and precautions.	Recognize the use of superficial thermal and mechanical modalities as a preparatory measure to improve occupational performance. On the basis of the intervention plan, demonstrate safe and effective administration of superficial thermal and mechanical modalities to achieve established goals while adhering to contraindications and precautions.



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	<p>SKILLS, KNOWLEDGE, AND COMPETENCIES FOR ENTRY-LEVEL PRACTICE ARE DERIVED FROM AOTA PRACTICE DOCUMENTS AND NBCOT PRACTICE ANALYSIS STUDIES. SUPERFICIAL THERMAL MODALITIES INCLUDE, BUT ARE NOT LIMITED TO: HYDROTHERAPY/WHIRLPOOL, CRYOTHERAPY (COLD PACKS, ICE), FLUIDOTHERAPY™, HOT PACKS, PARAFFIN, WATER, AND INFRARED. MECHANICAL MODALITIES INCLUDE, BUT ARE NOT LIMITED TO: VASOPNEUMATIC DEVICES AND CONTINUOUS PASSIVE MOTION.</p> <p>THE WORD 'DEMONSTRATE' DOES NOT REQUIRE THAT A STUDENT ACTUALLY PERFORM THE TASK TO VERIFY KNOWLEDGE AND UNDERSTANDING. THE PROGRAM MAY SELECT THE TYPES OF LEARNING ACTIVITIES AND ASSESSMENTS THAT WILL INDICATE COMPLIANCE WITH THE STANDARD.</p> <p>FOR INSTITUTIONS IN STATES WHERE REGULATIONS RESTRICT THE USE OF PHYSICAL AGENT MODALITIES, IT IS RECOMMENDED THAT STUDENTS BE EXPOSED TO THE MODALITIES OFFERED IN PRACTICE TO ALLOW STUDENTS KNOWLEDGE AND EXPERIENCE WITH THE MODALITIES IN PREPARATION FOR THE NBCOT EXAMINATION AND FOR PRACTICE OUTSIDE OF THE STATE IN WHICH THE EDUCATIONAL INSTITUTION RESIDES.</p>		
B.5.16.	Explain the use of deep thermal and electrotherapeutic modalities as a preparatory measure to improve occupational performance, including indications, contraindications, and precautions.	Explain the use of deep thermal and electrotherapeutic modalities as a preparatory measure to improve occupational performance, including indications, contraindications, and precautions.	(No related Standard)
	<p>SKILLS, KNOWLEDGE, AND COMPETENCIES FOR ENTRY-LEVEL PRACTICE ARE DERIVED FROM AOTA PRACTICE DOCUMENTS AND NBCOT PRACTICE ANALYSIS STUDIES. DEEP THERMAL MODALITIES INCLUDE, BUT ARE NOT LIMITED TO: THERAPEUTIC ULTRASOUND AND PHONOPHORESIS. ELECTROTHERAPEUTIC MODALITIES INCLUDE, BUT ARE NOT LIMITED TO: BIOFEEDBACK, NEUROMUSCULAR ELECTRICAL STIMULATION, FUNCTIONAL ELECTRICAL STIMULATION, TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION, ELECTRICAL STIMULATION FOR TISSUE REPAIR, HIGH-VOLTAGE GALVANIC STIMULATION, AND IONTOPHORESIS.</p>		
B.5.17.	Develop and promote the use of appropriate home and community programming to support performance in the client's natural environment and participation in all contexts relevant to the client.	Develop and promote the use of appropriate home and community programming to support performance in the client's natural environment and participation in all contexts relevant to the client.	Promote the use of appropriate home and community programming to support performance in the client's natural environment and participation in all contexts relevant to the client.
B.5.18.	Demonstrate an understanding of health literacy and the ability to educate and train the client, caregiver, family and significant others, and communities to facilitate skills in areas of occupation as well as prevention, health maintenance, health promotion, and safety.	Demonstrate an understanding of health literacy and the ability to educate and train the client, caregiver, family and significant others, and communities to facilitate skills in areas of occupation as well as prevention, health maintenance, health promotion, and safety.	Demonstrate an understanding of health literacy and the ability to educate and train the client, caregiver, and family and significant others to facilitate skills in areas of occupation as well as prevention, health maintenance, health promotion, and safety.
B.5.19.	Apply the principles of the teaching-learning process using educational methods to design experiences to address the needs of the client, family, significant others, communities, colleagues, other health providers, and the public.	Apply the principles of the teaching-learning process using educational methods to design experiences to address the needs of the client, family, significant others, colleagues, other health providers, and the public.	Use the teaching-learning process with the client, family, significant others, colleagues, other health providers, and the public. Collaborate with the occupational therapist and learner to identify appropriate educational methods.
B.5.20.	Effectively interact through written, oral, and nonverbal communication with the client, family, significant others, communities, colleagues, other health providers, and the public in a professionally acceptable manner.	Effectively interact through written, oral, and nonverbal communication with the client, family, significant others, colleagues, other health providers, and the public in a professionally acceptable manner.	Effectively interact through written, oral, and nonverbal communication with the client, family, significant others, colleagues, other health providers, and the public in a professionally acceptable manner.
B.5.21.	Effectively communicate, coordinate, and work interprofessionally with those who provide services to individuals, organizations, and/or populations in order	Effectively communicate and work interprofessionally with those who provide services to individuals, organizations, and/or populations in order to clarify	Effectively communicate and work interprofessionally with those who provide services to individuals and groups in order to clarify each member's

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	to clarify each member's responsibility in executing components of an intervention plan.	each member's responsibility in executing an intervention plan.	responsibility in executing an intervention plan.
B.5.22.	Refer to specialists (both internal and external to the profession) for consultation and intervention.	Refer to specialists (both internal and external to the profession) for consultation and intervention.	Recognize and communicate the need to refer to specialists (both internal and external to the profession) for consultation and intervention.
B.5.23.	Grade and adapt the environment, tools, materials, occupations, and interventions to reflect the changing needs of the client, the sociocultural context, and technological advances.	Grade and adapt the environment, tools, materials, occupations, and interventions to reflect the changing needs of the client, the sociocultural context, and technological advances.	Grade and adapt the environment, tools, materials, occupations, and interventions to reflect the changing needs of the client and the sociocultural context.
B.5.24.	Select and teach compensatory strategies, such as use of technology and adaptations to the environment, that support performance, participation, and well-being.	Select and teach compensatory strategies, such as use of technology and adaptations to the environment, that support performance, participation, and well-being.	Teach compensatory strategies, such as use of technology and adaptations to the environment, that support performance, participation, and well-being.
B.5.25.	Identify and demonstrate techniques in skills of supervision and collaboration with occupational therapy assistants and other professionals on therapeutic interventions.	Identify and demonstrate techniques in skills of supervision and collaboration with occupational therapy assistants and other professionals on therapeutic interventions.	Demonstrate skills of collaboration with occupational therapists and other professionals on therapeutic interventions.
B.5.26.	Demonstrate use of the consultative process with groups, programs, organizations, or communities.	Understand when and how to use the consultative process with groups, programs, organizations, or communities.	Understand when and how to use the consultative process with specific consumers or consumer groups as directed by an occupational therapist.
B.5.27.	Demonstrate care coordination, case management, and transition services in traditional and emerging practice environments.	Describe the role of the occupational therapist in care coordination, case management, and transition services in traditional and emerging practice environments.	Describe the role of the occupational therapy assistant in care coordination, case management, and transition services in traditional and emerging practice environments.
B.5.28.	Monitor and reassess, in collaboration with the client, caregiver, family, and significant others, the effect of occupational therapy intervention and the need for continued or modified intervention.	Monitor and reassess, in collaboration with the client, caregiver, family, and significant others, the effect of occupational therapy intervention and the need for continued or modified intervention.	Monitor and reassess, in collaboration with the client, caregiver, family, and significant others, the effect of occupational therapy intervention and the need for continued or modified intervention, and communicate the identified needs to the occupational therapist.
B.5.29.	Plan for discharge, in collaboration with the client, by reviewing the needs of the client, caregiver, family, and significant others; available resources; and discharge environment. This process includes, but is not limited to, identification of client's current status within the continuum of care; identification of community, human, and fiscal resources; recommendations for environmental adaptations; and home programming to facilitate the client's progression along the continuum toward outcome goals.	Plan for discharge, in collaboration with the client, by reviewing the needs of the client, caregiver, family, and significant others; available resources; and discharge environment. This process includes, but is not limited to, identification of client's current status within the continuum of care; identification of community, human, and fiscal resources; recommendations for environmental adaptations; and home programming to facilitate the client's progression along the continuum toward outcome goals.	Facilitate discharge planning by reviewing the needs of the client, caregiver, family, and significant others; available resources; and discharge environment, and identify those needs to the occupational therapist, client, and others involved in discharge planning. This process includes, but is not limited to, identification of community, human, and fiscal resources; recommendations for environmental adaptations; and home programming.

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B.5.30.	Organize, collect, and analyze data in a systematic manner for evaluation of practice outcomes. Report evaluation results and modify practice as needed to improve client outcomes.	Organize, collect, and analyze data in a systematic manner for evaluation of practice outcomes. Report evaluation results and modify practice as needed to improve client outcomes.	Under the direction of an administrator, manager, or occupational therapist, collect, organize, and report on data for evaluation of client outcomes.
B.5.31.	Terminate occupational therapy services when stated outcomes have been achieved or it has been determined that they cannot be achieved. This process includes developing a summary of occupational therapy outcomes, appropriate recommendations, and referrals and discussion of postdischarge needs with the client and with appropriate others.	Terminate occupational therapy services when stated outcomes have been achieved or it has been determined that they cannot be achieved. This process includes developing a summary of occupational therapy outcomes, appropriate recommendations, and referrals and discussion of post-discharge needs with the client and with appropriate others.	Recommend to the occupational therapist the need for termination of occupational therapy services when stated outcomes have been achieved or it has been determined that they cannot be achieved. Assist with developing a summary of occupational therapy outcomes, recommendations, and referrals.
B.5.32.	Document occupational therapy services to ensure accountability of service provision and to meet standards for reimbursement of services. Documentation must effectively communicate the need and rationale for occupational therapy services and must be appropriate to the context in which the service is delivered.	Document occupational therapy services to ensure accountability of service provision and to meet standards for reimbursement of services. Documentation must effectively communicate the need and rationale for occupational therapy services and must be appropriate to the context in which the service is delivered.	Document occupational therapy services to ensure accountability of service provision and to meet standards for reimbursement of services. Documentation must effectively communicate the need and rationale for occupational therapy services and must be appropriate to the context in which the service is delivered.
B.5.33.	Provide population-based occupational therapy intervention that addresses occupational needs as identified by a community.	<i>(No related Standard)</i>	<i>(No related Standard)</i>
<b>B.6.0. CONTEXT OF SERVICE DELIVERY</b> Context of service delivery includes the knowledge and understanding of the various contexts, such as professional, social, cultural, political, economic, and ecological, in which occupational therapy services are provided. The program must facilitate development of the performance criteria listed below. The student will be able to			
B.6.1.	Evaluate and address the various contexts of health care, education, community, political, and social systems as they relate to the practice of occupational therapy.	Evaluate and address the various contexts of health care, education, community, political, and social systems as they relate to the practice of occupational therapy.	Describe the contexts of health care, education, community, and social systems as they relate to the practice of occupational therapy.
B.6.2.	Analyze the current policy issues and the social, economic, political, geographic, and demographic factors that influence the various contexts for practice of occupational therapy.	Analyze the current policy issues and the social, economic, political, geographic, and demographic factors that influence the various contexts for practice of occupational therapy.	Identify the potential impact of current policy issues and the social, economic, political, geographic, or demographic factors on the practice of occupational therapy.
B.6.3.	Integrate current social, economic, political, geographic, and demographic factors to promote policy development and the provision of occupational therapy services.	Integrate current social, economic, political, geographic, and demographic factors to promote policy development and the provision of occupational therapy services.	<i>(No related Standard)</i>
B.6.4.	Advocate for changes in service delivery policies, effect changes in the system, and identify opportunities to address societal needs.	Articulate the role and responsibility of the practitioner to advocate for changes in service delivery policies, to effect changes in the system, and to identify opportunities in emerging practice areas.	Identify the role and responsibility of the practitioner to advocate for changes in service delivery policies, to effect changes in the system, and to recognize opportunities in emerging practice areas.

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B.6.5.	Analyze the trends in models of service delivery, including, but not limited to, medical, educational, community, and social models, and their potential effect on the practice of occupational therapy.	Analyze the trends in models of service delivery, including, but not limited to, medical, educational, community, and social models, and their potential effect on the practice of occupational therapy.	(No related Standard)
B.6.6.	Integrate national and international resources in education, research, practice, and policy development.	Utilize national and international resources in making assessment or intervention choices and appreciate the influence of international occupational therapy contributions to education, research, and practice.	(No related Standard)
<b>B.7.0.</b>	<b>LEADERSHIP AND MANAGEMENT</b> Leadership and management skills include principles and applications of leadership and management theory. The program must facilitate development of the performance criteria listed below. The student will be able to	<b>MANAGEMENT OF OCCUPATIONAL THERAPY SERVICES</b> Management of occupational therapy services includes the application of principles of management and systems in the provision of occupational therapy services to individuals and organizations. The program must facilitate development of the performance criteria listed below. The student will be able to	<b>ASSISTANCE WITH MANAGEMENT OF OCCUPATIONAL THERAPY SERVICES</b> Assistance with management of occupational therapy services includes the application of principles of management and systems in the provision of occupational therapy services to individuals and organizations. The program must facilitate development of the performance criteria listed below. The student will be able to
B.7.1.	Identify and evaluate the impact of contextual factors on the management and delivery of occupational therapy services for individuals and populations.	Describe and discuss the impact of contextual factors on the management and delivery of occupational therapy services.	Identify the impact of contextual factors on the management and delivery of occupational therapy services.
B.7.2.	Identify and evaluate the systems and structures that create federal and state legislation and regulations and their implications and effects on practice and policy.	Describe the systems and structures that create federal and state legislation and regulations and their implications and effects on practice.	Identify the systems and structures that create federal and state legislation and regulations and their implications and effects on practice.
B.7.3.	Demonstrate knowledge of applicable national requirements for credentialing and requirements for licensure, certification, or registration under state laws.	Demonstrate knowledge of applicable national requirements for credentialing and requirements for licensure, certification, or registration under state laws.	Demonstrate knowledge of applicable national requirements for credentialing and requirements for licensure, certification, or registration under state laws.
B.7.4.	Demonstrate knowledge of various reimbursement systems (e.g., federal, state, third party, private payer), appeals mechanisms, and documentation requirements that affect society and the practice of occupational therapy.	Demonstrate knowledge of various reimbursement systems (e.g., federal, state, third party, private payer), appeals mechanisms, and documentation requirements that affect the practice of occupational therapy.	Demonstrate knowledge of various reimbursement systems (e.g., federal, state, third party, private payer) and documentation requirements that affect the practice of occupational therapy.
B.7.5.	Demonstrate leadership skills in the ability to plan, develop, organize, and market the delivery of services to include the determination of programmatic needs and service delivery options and formulation and management of staffing for effective service provision.	Demonstrate the ability to plan, develop, organize, and market the delivery of services to include the determination of programmatic needs and service delivery options and formulation and management of staffing for effective service provision.	Demonstrate the ability to participate in the development, marketing, and management of service delivery options.
B.7.6.	Demonstrate leadership skills in the ability to design ongoing processes for quality improvement (e.g., outcome studies analysis) and develop program changes as needed to ensure quality of services and to direct administrative changes.	Demonstrate the ability to design ongoing processes for quality improvement (e.g., outcome studies analysis) and develop program changes as needed to ensure quality of services and to direct administrative changes.	Participate in the documentation of ongoing processes for quality improvement and implement program changes as needed to ensure quality of services.



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B.7.7.	Develop strategies for effective, competency-based legal and ethical supervision of occupational therapy and non-occupational therapy personnel.	Develop strategies for effective, competency-based legal and ethical supervision of occupational therapy and non-occupational therapy personnel.	Identify strategies for effective, competency-based legal and ethical supervision of nonprofessional personnel.
B.7.8.	Describe the ongoing professional responsibility for providing fieldwork education and the criteria for becoming a fieldwork educator.	Describe the ongoing professional responsibility for providing fieldwork education and the criteria for becoming a fieldwork educator.	Describe the ongoing professional responsibility for providing fieldwork education and the criteria for becoming a fieldwork educator.
B.7.9.	Demonstrate knowledge of and the ability to write program development plans for provision of occupational therapy services to individuals and populations.	<i>(No related Standard)</i>	<i>(No related Standard)</i>
B.7.10.	Identify and adapt existing models or develop new service provision models to respond to policy, regulatory agencies, and reimbursement and compliance standards.	<i>(No related Standard)</i>	<i>(No related Standard)</i>
B.7.11.	Identify and develop strategies to enable occupational therapy to respond to society's changing needs.	<i>(No related Standard)</i>	<i>(No related Standard)</i>
B.7.12.	Identify and implement strategies to promote staff development that are based on evaluation of the personal and professional abilities and competencies of supervised staff as they relate to job responsibilities.	<i>(No related Standard)</i>	<i>(No related Standard)</i>
<b>B.8.0. SCHOLARSHIP</b> <b>Promotion of scholarly endeavors will serve to describe and interpret the scope of the profession, establish new knowledge, and interpret and apply this knowledge to practice. The program must facilitate development of the performance criteria listed below. The student will be able to</b>			
B.8.1.	Articulate the importance of how scholarly activities contribute to the development of a body of knowledge relevant to the profession of occupational therapy.	Articulate the importance of how scholarly activities contribute to the development of a body of knowledge relevant to the profession of occupational therapy.	Articulate the importance of how scholarly activities and literature contribute to the development of the profession.
B.8.2.	Effectively locate, understand, critique, and evaluate information, including the quality of evidence.	Effectively locate, understand, critique, and evaluate information, including the quality of evidence.	Effectively locate and understand information, including the quality of the source of information.
B.8.3.	Use scholarly literature to make evidence-based decisions.	Use scholarly literature to make evidence-based decisions.	Use professional literature to make evidence-based practice decisions in collaboration with the occupational therapist.
B.8.4.	Select, apply, and interpret basic descriptive, correlational, and inferential quantitative statistics and code, analyze, and synthesize qualitative data.	Understand and use basic descriptive, correlational, and inferential quantitative statistics and code, analyze, and synthesize qualitative data.	<i>(No related Standard)</i>
B.8.5.	Understand and critique the validity of research studies, including their design (both quantitative and qualitative) and methodology.	Understand and critique the validity of research studies, including their design (both quantitative and qualitative) and methodology.	<i>(No related Standard)</i>

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B.8.6.	Design a scholarly proposal that includes the research question, relevant literature, sample, design, measurement, and data analysis.	Demonstrate the skills necessary to design a scholarly proposal that includes the research question, relevant literature, sample, design, measurement, and data analysis.	(No related Standard)
B.8.7.	Implement a scholarly study that evaluates professional practice, service delivery, and/or professional issues (e.g., Scholarship of Integration, Scholarship of Application, Scholarship of Teaching and Learning).	Participate in scholarly activities that evaluate professional practice, service delivery, and/or professional issues (e.g., Scholarship of Integration, Scholarship of Application, Scholarship of Teaching and Learning).	Identify how scholarly activities can be used to evaluate professional practice, service delivery, and/or professional issues (e.g., Scholarship of Integration, Scholarship of Application, Scholarship of Teaching and Learning).
		THE INTENT OF STANDARD B.8.7 IS TO EMPHASIZE THE "DOING" PART OF THE RESEARCH PROCESS THAT CAN SUPPORT BEGINNING RESEARCH SKILLS IN A PRACTICE SETTING. SYSTEMATIC REVIEWS THAT REQUIRE ANALYSIS AND SYNTHESIS OF DATA MEET THE REQUIREMENT FOR THIS STANDARD. NARRATIVE REVIEWS DO NOT MEET THIS STANDARD.  A CULMINATING PROJECT RELATED TO RESEARCH IS NOT REQUIRED FOR THE MASTER'S LEVEL. IF IT IS CONSISTENT WITH THE PROGRAM'S CURRICULUM DESIGN AND GOALS, THE PROGRAM MAY CHOOSE TO REQUIRE A CULMINATING RESEARCH LEARNING ACTIVITY (E.G., SYSTEMATIC REVIEW OF LITERATURE, FACULTY-LED RESEARCH ACTIVITY, STUDENT RESEARCH PROJECT).	
B.8.8.	Write scholarly reports appropriate for presentation or for publication in a peer-reviewed journal. Examples of scholarly reports would include position papers, white papers, and persuasive discussion papers.	Demonstrate skills necessary to write a scholarly report in a format for presentation or publication.	Demonstrate the skills to read and understand a scholarly report.
B.8.9.	Demonstrate an understanding of the process of locating and securing grants and how grants can serve as a fiscal resource for scholarly activities.	Demonstrate an understanding of the process of locating and securing grants and how grants can serve as a fiscal resource for scholarly activities.	(No related Standard)
B.8.10.	Complete a culminating project that relates theory to practice and demonstrates synthesis of advanced knowledge in a practice area.	(No related Standard)	(No related Standard)
	STANDARD C.2.0 REQUIRES THAT THE STUDENT MUST SUCCESSFULLY COMPLETE ALL COURSEWORK AND LEVEL II FIELDWORK AND PASS A COMPETENCY REQUIREMENT PRIOR TO THE COMMENCEMENT OF THE DOCTORAL EXPERIENTIAL COMPONENT. HOWEVER, THE OTD CULMINATING PROJECT AND EXPERIENTIAL COMPONENT MAY OCCUR AT THE SAME TIME.		

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<b>B.9.0. PROFESSIONAL ETHICS, VALUES, AND RESPONSIBILITIES</b> Professional ethics, values, and responsibilities include an understanding and appreciation of ethics and values of the profession of occupational therapy. The program must facilitate development of the performance criteria listed below. The student will be able to			
B.9.1.	Demonstrate knowledge and understanding of the American Occupational Therapy Association (AOTA) <i>Occupational Therapy Code of Ethics and Ethics Standards</i> and AOTA <i>Standards of Practice</i> and use them as a guide for ethical decision making in professional interactions, client interventions, and employment settings.	Demonstrate knowledge and understanding of the American Occupational Therapy Association (AOTA) <i>Occupational Therapy Code of Ethics and Ethics Standards</i> and AOTA <i>Standards of Practice</i> and use them as a guide for ethical decision making in professional interactions, client interventions, and employment settings.	Demonstrate knowledge and understanding of the American Occupational Therapy Association (AOTA) <i>Occupational Therapy Code of Ethics and Ethics Standards</i> and AOTA <i>Standards of Practice</i> and use them as a guide for ethical decision making in professional interactions, client interventions, and employment settings.
B.9.2.	Discuss and justify how the role of a professional is enhanced by knowledge of and involvement in international, national, state, and local occupational therapy associations and related professional associations.	Discuss and justify how the role of a professional is enhanced by knowledge of and involvement in international, national, state, and local occupational therapy associations and related professional associations.	Explain and give examples of how the role of a professional is enhanced by knowledge of and involvement in international, national, state, and local occupational therapy associations and related professional associations.
B.9.3.	Promote occupational therapy by educating other professionals, service providers, consumers, third-party payers, regulatory bodies, and the public.	Promote occupational therapy by educating other professionals, service providers, consumers, third-party payers, regulatory bodies, and the public.	Promote occupational therapy by educating other professionals, service providers, consumers, third-party payers, regulatory bodies, and the public.
B.9.4.	Identify and develop strategies for ongoing professional development to ensure that practice is consistent with current and accepted standards.	Discuss strategies for ongoing professional development to ensure that practice is consistent with current and accepted standards.	Discuss strategies for ongoing professional development to ensure that practice is consistent with current and accepted standards.
B.9.5.	Discuss professional responsibilities related to liability issues under current models of service provision.	Discuss professional responsibilities related to liability issues under current models of service provision.	Identify professional responsibilities related to liability issues under current models of service provision.
B.9.6.	Discuss and evaluate personal and professional abilities and competencies as they relate to job responsibilities.	Discuss and evaluate personal and professional abilities and competencies as they relate to job responsibilities.	Identify personal and professional abilities and competencies as they relate to job responsibilities.
B.9.7.	Discuss and justify the varied roles of the occupational therapist as a practitioner, educator, researcher, policy developer, program developer, advocate, administrator, consultant, and entrepreneur.	Discuss and justify the varied roles of the occupational therapist as a practitioner, educator, researcher, consultant, and entrepreneur.	Identify and appreciate the varied roles of the occupational therapy assistant as a practitioner, educator, and research assistant.
B.9.8.	Explain and justify the importance of supervisory roles, responsibilities, and collaborative professional relationships between the occupational therapist and the occupational therapy assistant.	Explain and justify the importance of supervisory roles, responsibilities, and collaborative professional relationships between the occupational therapist and the occupational therapy assistant.	Identify and explain the need for supervisory roles, responsibilities, and collaborative professional relationships between the occupational therapist and the occupational therapy assistant.
B.9.9.	Describe and discuss professional responsibilities and issues when providing service on a contractual basis.	Describe and discuss professional responsibilities and issues when providing service on a contractual basis.	Identify professional responsibilities and issues when providing service on a contractual basis.

STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
B.9.10.	Demonstrate strategies for analyzing issues and making decisions to resolve personal and organizational ethical conflicts.	Demonstrate strategies for analyzing issues and making decisions to resolve personal and organizational ethical conflicts.	Identify strategies for analyzing issues and making decisions to resolve personal and organizational ethical conflicts.
B.9.11.	Demonstrate a variety of informal and formal strategies for resolving ethics disputes in varying practice areas.	Explain the variety of informal and formal systems for resolving ethics disputes that have jurisdiction over occupational therapy practice.	Identify the variety of informal and formal systems for resolving ethics disputes that have jurisdiction over occupational therapy practice.
B.9.12.	Describe and implement strategies to assist the consumer in gaining access to occupational therapy and other health and social services.	Describe and discuss strategies to assist the consumer in gaining access to occupational therapy services.	Identify strategies to assist the consumer in gaining access to occupational therapy services.
B.9.13.	Demonstrate advocacy by participating in and exploring leadership positions in organizations or agencies promoting the profession (e.g., AOTA, state occupational therapy associations, World Federation of Occupational Therapists, advocacy organizations), consumer access and services, and the welfare of the community.	Demonstrate professional advocacy by participating in organizations or agencies promoting the profession (e.g., AOTA, state occupational therapy associations, advocacy organizations).	Demonstrate professional advocacy by participating in organizations or agencies promoting the profession (e.g., AOTA, state occupational therapy associations, advocacy organizations).
<b>SECTION C: FIELDWORK EDUCATION AND DOCTORAL EXPERIENTIAL COMPONENT</b>			
<b>C.1.0: FIELDWORK EDUCATION</b> Fieldwork education is a crucial part of professional preparation and is best integrated as a component of the curriculum design. Fieldwork experiences should be implemented and evaluated for their effectiveness by the educational institution. The experience should provide the student with the opportunity to carry out professional responsibilities under supervision of a qualified occupational therapy practitioner serving as a role model. The academic fieldwork coordinator is responsible for the program's compliance with fieldwork education requirements. The academic fieldwork coordinator will			
C.1.1.	Ensure that the fieldwork program reflects the sequence and scope of content in the curriculum design in collaboration with faculty so that fieldwork experiences strengthen the ties between didactic and fieldwork education.	Ensure that the fieldwork program reflects the sequence and scope of content in the curriculum design in collaboration with faculty so that fieldwork experiences strengthen the ties between didactic and fieldwork education.	Ensure that the fieldwork program reflects the sequence and scope of content in the curriculum design in collaboration with faculty so that fieldwork experiences strengthen the ties between didactic and fieldwork education.
C.1.2.	Document the criteria and process for selecting fieldwork sites, to include maintaining memoranda of understanding, complying with all site requirements, maintaining site objectives and site data, and communicating this information to students.	Document the criteria and process for selecting fieldwork sites, to include maintaining memoranda of understanding, complying with all site requirements, maintaining site objectives and site data, and communicating this information to students.	Document the criteria and process for selecting fieldwork sites, to include maintaining memoranda of understanding, complying with all site requirements, maintaining site objectives and site data, and communicating this information to students.
<b>THE PROGRAM MUST HAVE EVIDENCE OF THE TIMELY IMPLEMENTATION OF THE DOCUMENTED CRITERIA AND PROCESS</b>			
C.1.3.	Demonstrate that academic and fieldwork educators collaborate in establishing fieldwork objectives and communicate with the student and fieldwork educator about progress and performance during fieldwork.	Demonstrate that academic and fieldwork educators collaborate in establishing fieldwork objectives and communicate with the student and fieldwork educator about progress and performance during fieldwork.	Demonstrate that academic and fieldwork educators collaborate in establishing fieldwork objectives and communicate with the student and fieldwork educator about progress and performance during fieldwork.
<b>ACADEMIC AND FIELDWORK EDUCATORS ARE EXPECTED TO COLLABORATE IN ESTABLISHING FIELDWORK OBJECTIVES PRIOR TO THE FIELDWORK EXPERIENCE. THEY ARE ALSO EXPECTED TO COMMUNICATE WITH THE STUDENT ABOUT PROGRESS AND PERFORMANCE THROUGHOUT THE FIELDWORK PERIOD.</b>			



STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
C.1.4.	Ensure that the ratio of fieldwork educators to students enables proper supervision and the ability to provide frequent assessment of student progress in achieving stated fieldwork objectives.	Ensure that the ratio of fieldwork educators to students enables proper supervision and the ability to provide frequent assessment of student progress in achieving stated fieldwork objectives.	Ensure that the ratio of fieldwork educators to students enables proper supervision and the ability to provide frequent assessment of student progress in achieving stated fieldwork objectives.
C.1.5.	Ensure that fieldwork agreements are sufficient in scope and number to allow completion of graduation requirements in a timely manner in accordance with the policy adopted by the program as required by Standard A.4.14.	Ensure that fieldwork agreements are sufficient in scope and number to allow completion of graduation requirements in a timely manner in accordance with the policy adopted by the program as required by Standard A.4.14.	Ensure that fieldwork agreements are sufficient in scope and number to allow completion of graduation requirements in a timely manner in accordance with the policy adopted by the program as required by Standard A.4.14.
<b>PROGRAMS MUST HAVE AMPLE LEVEL I AND LEVEL II FIELDWORK PLACEMENTS FOR ALL STUDENTS IN A VARIETY OF SETTINGS CONSISTENT WITH THE CURRICULUM DESIGN</b>			
C.1.6.	The program must have evidence of valid memoranda of understanding in effect and signed by both parties at the time the student is completing the Level I or Level II fieldwork experience. (Electronic memoranda of understanding and signatures are acceptable.) Responsibilities of the sponsoring institution(s) and each fieldwork site must be clearly documented in the memorandum of understanding.	The program must have evidence of valid memoranda of understanding in effect and signed by both parties at the time the student is completing the Level I or Level II fieldwork experience. (Electronic memoranda of understanding and signatures are acceptable.) Responsibilities of the sponsoring institution(s) and each fieldwork site must be clearly documented in the memorandum of understanding.	The program must have evidence of valid memoranda of understanding in effect and signed by both parties at the time the student is completing the Level I or Level II fieldwork experience. (Electronic memoranda of understanding and signatures are acceptable.) Responsibilities of the sponsoring institution(s) and each fieldwork site must be clearly documented in the memorandum of understanding.
<p>IF A FIELD TRIP, OBSERVATION, OR SERVICE LEARNING ACTIVITY IS USED TO COUNT TOWARD PART OF LEVEL I FIELDWORK, THEN A MEMORANDUM OF UNDERSTANDING IS REQUIRED. IF A FIELD TRIP, OBSERVATION, OR SERVICE LEARNING ACTIVITY IS NOT USED TO COUNT TOWARD PART OF LEVEL I FIELDWORK, THEN NO MEMORANDUM OF UNDERSTANDING IS REQUIRED.</p> <p>WHEN A MEMORANDUM OF UNDERSTANDING IS ESTABLISHED WITH A MULTISITE SERVICE PROVIDER (E.G., CONTRACT AGENCY, CORPORATE ENTITY), THE ACOTE STANDARDS DO NOT REQUIRE A SEPARATE MEMORANDUM OF UNDERSTANDING WITH EACH PRACTICE SITE.</p> <p>A SIGNED MEMORANDUM OF UNDERSTANDING MUST BE IN EFFECT FROM INITIATION TO CONCLUSION OF THE FIELDWORK EXPERIENCE.</p>			
C.1.7.	Ensure that at least one fieldwork experience (either Level I or Level II) has as its focus psychological and social factors that influence engagement in occupation.	Ensure that at least one fieldwork experience (either Level I or Level II) has as its focus psychological and social factors that influence engagement in occupation.	Ensure that at least one fieldwork experience (either Level I or Level II) has as its focus psychological and social factors that influence engagement in occupation.
<p>IF STANDARD C.1.7 IS MET THROUGH A LEVEL I FIELDWORK EXPERIENCE, THE EXPERIENCE MUST BE COMPARABLE IN DURATION AND ASSESSMENT METHODS TO OTHER LEVEL I FIELDWORK EXPERIENCES OFFERED BY THE PROGRAM. FOR EXAMPLE, A 2-HOUR FIELDTRIP IS NOT EQUIVALENT TO A 3-DAY EXPERIENCE. THE EXPERIENCE MUST BE CONSISTENT WITH THE CURRICULUM DESIGN.</p> <p>TO MEET THIS STANDARD, STUDENTS MUST PARTICIPATE IN A FIELDWORK ROTATION THAT IS CREATED EXPLICITLY/SPECIFICALLY FOR THE PURPOSE OF MEETING OBJECTIVES ADDRESSING PSYCHOLOGICAL AND SOCIAL FACTORS. COLLABORATION WITH THE FIELDWORK EDUCATOR MUST INDICATE THAT THE SETTING IS AWARE OF AND SUPPORTIVE OF THIS FOCUS. AN ASSIGNMENT OR OBJECTIVE ALONE IS NOT SUFFICIENT FOR COMPLIANCE.</p> <p>THE STANDARDS DO NOT STATE THAT THE PSYCHOLOGICAL AND SOCIAL FACTORS COMPONENT OF FIELDWORK HAS TO BE A PART OF A COURSE. LEVEL I FIELDWORK MAY BE A SEPARATE ENTITY AND NOT ATTACHED TO A COURSE. THE PROGRAM SHOULD HAVE APPROPRIATE AND SPECIFIC OBJECTIVES TO MEET THE INTENT OF STANDARD C.1.7.</p>			

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<b>The goal of Level I fieldwork is to introduce students to the fieldwork experience, to apply knowledge to practice, and to develop understanding of the needs of clients. The program will</b>			
C.1.8.	Ensure that Level I fieldwork is integral to the program's curriculum design and include experiences designed to enrich didactic coursework through directed observation and participation in selected aspects of the occupational therapy process.	Ensure that Level I fieldwork is integral to the program's curriculum design and include experiences designed to enrich didactic coursework through directed observation and participation in selected aspects of the occupational therapy process.	Ensure that Level I fieldwork is integral to the program's curriculum design and include experiences designed to enrich didactic coursework through directed observation and participation in selected aspects of the occupational therapy process.
C.1.9.	Ensure that qualified personnel supervise Level I fieldwork. Examples may include, but are not limited to, currently licensed or otherwise regulated occupational therapists and occupational therapy assistants, psychologists, physician assistants, teachers, social workers, nurses, and physical therapists.	Ensure that qualified personnel supervise Level I fieldwork. Examples may include, but are not limited to, currently licensed or otherwise regulated occupational therapists and occupational therapy assistants, psychologists, physician assistants, teachers, social workers, nurses, and physical therapists.	Ensure that qualified personnel supervise Level I fieldwork. Examples may include, but are not limited to, currently licensed or otherwise regulated occupational therapists and occupational therapy assistants, psychologists, physician assistants, teachers, social workers, nurses, and physical therapists.
C.1.10.	Document all Level I fieldwork experiences that are provided to students, including mechanisms for formal evaluation of student performance. Ensure that Level I fieldwork is not substituted for any part of Level II fieldwork.	Document all Level I fieldwork experiences that are provided to students, including mechanisms for formal evaluation of student performance. Ensure that Level I fieldwork is not substituted for any part of Level II fieldwork.	Document all Level I fieldwork experiences that are provided to students, including mechanisms for formal evaluation of student performance. Ensure that Level I fieldwork is not substituted for any part of Level II fieldwork.
<b>The goal of Level II fieldwork is to develop competent, entry-level, generalist occupational therapists. Level II fieldwork must be integral to the program's curriculum design and must include an in-depth experience in delivering occupational therapy services to clients, focusing on the application of purposeful and meaningful occupation and research, administration, and management of occupational therapy services. It is recommended that the student be exposed to a variety of clients across the lifespan and to a variety of settings. The program will</b>			<b>The goal of Level II fieldwork is to develop competent, entry-level, generalist occupational therapy assistants. Level II fieldwork must be integral to the program's curriculum design and must include an in-depth experience in delivering occupational therapy services to clients, focusing on the application of purposeful and meaningful occupation. It is recommended that the student be exposed to a variety of clients across the lifespan and to a variety of settings. The program will</b>
C.1.11.	Ensure that the fieldwork experience is designed to promote clinical reasoning and reflective practice, to transmit the values and beliefs that enable ethical practice, and to develop professionalism and competence in career responsibilities.	Ensure that the fieldwork experience is designed to promote clinical reasoning and reflective practice, to transmit the values and beliefs that enable ethical practice, and to develop professionalism and competence in career responsibilities.	Ensure that the fieldwork experience is designed to promote clinical reasoning appropriate to the occupational therapy assistant role, to transmit the values and beliefs that enable ethical practice, and to develop professionalism and competence in career responsibilities.

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C.1.12.	Provide Level II fieldwork in traditional and/or emerging settings, consistent with the curriculum design. In all settings, psychosocial factors influencing engagement in occupation must be understood and integrated for the development of client-centered, meaningful, occupation-based outcomes. The student can complete Level II fieldwork in a minimum of one setting if it is reflective of more than one practice area, or in a maximum of four different settings.	Provide Level II fieldwork in traditional and/or emerging settings, consistent with the curriculum design. In all settings, psychosocial factors influencing engagement in occupation must be understood and integrated for the development of client-centered, meaningful, occupation-based outcomes. The student can complete Level II fieldwork in a minimum of one setting if it is reflective of more than one practice area, or in a maximum of four different settings.	Provide Level II fieldwork in traditional and/or emerging settings, consistent with the curriculum design. In all settings, psychosocial factors influencing engagement in occupation must be understood and integrated for the development of client-centered, meaningful, occupation-based outcomes. The student can complete Level II fieldwork in a minimum of one setting if it is reflective of more than one practice area, or in a maximum of three different settings.
C.1.13.	Require a minimum of 24 weeks' full-time Level II fieldwork. This may be completed on a part-time basis, as defined by the fieldwork placement in accordance with the fieldwork placement's usual and customary personnel policies, as long as it is at least 50% of an FTE at that site.	Require a minimum of 24 weeks' full-time Level II fieldwork. This may be completed on a part-time basis, as defined by the fieldwork placement in accordance with the fieldwork placement's usual and customary personnel policies, as long as it is at least 50% of an FTE at that site.	Require a minimum of 16 weeks' full-time Level II fieldwork. This may be completed on a part-time basis, as defined by the fieldwork placement in accordance with the fieldwork placement's usual and customary personnel policies, as long as it is at least 50% of an FTE at that site.
C.1.14.	Ensure that the student is supervised by a currently licensed or otherwise regulated occupational therapist who has a minimum of 1 year full-time (or its equivalent) of practice experience subsequent to initial certification and who is adequately prepared to serve as a fieldwork educator. The supervising therapist may be engaged by the fieldwork site or by the educational program.	Ensure that the student is supervised by a currently licensed or otherwise regulated occupational therapist who has a minimum of 1 year full-time (or its equivalent) of practice experience subsequent to initial certification and who is adequately prepared to serve as a fieldwork educator. The supervising therapist may be engaged by the fieldwork site or by the educational program.	Ensure that the student is supervised by a currently licensed or otherwise regulated occupational therapist or occupational therapy assistant (under the supervision of an occupational therapist) who has a minimum of 1 year full-time (or its equivalent) of practice experience subsequent to initial certification and who is adequately prepared to serve as a fieldwork educator. The supervising therapist may be engaged by the fieldwork site or by the educational program.
<b>VERIFICATION THAT THE FIELDWORK SUPERVISOR MEETS ALL REQUIREMENTS OF STANDARD C.1.14 MUST OCCUR PRIOR TO THE ARRIVAL OF THE STUDENT AT THE FIELDWORK EXPERIENCE.</b>			
C.1.15.	Document a mechanism for evaluating the effectiveness of supervision (e.g., student evaluation of fieldwork) and for providing resources for enhancing supervision (e.g., materials on supervisory skills, continuing education opportunities, articles on theory and practice).	Document a mechanism for evaluating the effectiveness of supervision (e.g., student evaluation of fieldwork) and for providing resources for enhancing supervision (e.g., materials on supervisory skills, continuing education opportunities, articles on theory and practice).	Document a mechanism for evaluating the effectiveness of supervision (e.g., student evaluation of fieldwork) and for providing resources for enhancing supervision (e.g., materials on supervisory skills, continuing education opportunities, articles on theory and practice).
C.1.16.	Ensure that supervision provides protection of consumers and opportunities for appropriate role modeling of occupational therapy practice. Initially, supervision should be direct and then decrease to less direct supervision as appropriate for the setting, the severity of the client's condition, and the ability of the student.	Ensure that supervision provides protection of consumers and opportunities for appropriate role modeling of occupational therapy practice. Initially, supervision should be direct and then decrease to less direct supervision as appropriate for the setting, the severity of the client's condition, and the ability of the student.	Ensure that supervision provides protection of consumers and opportunities for appropriate role modeling of occupational therapy practice. Initially, supervision should be direct and then decrease to less direct supervision as appropriate for the setting, the severity of the client's condition, and the ability of the student.
C.1.17.	Ensure that supervision provided in a setting where no occupational therapy services exist includes a documented plan for provision of occupational	Ensure that supervision provided in a setting where no occupational therapy services exist includes a documented plan for provision of occupational	Ensure that supervision provided in a setting where no occupational therapy services exist includes a documented plan for provision of occupational

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	therapy services and supervision by a currently licensed otherwise regulated occupational therapist with at least 3 years' full-time or its equivalent of professional experience. Supervision must include a minimum of 8 hours of direct supervision each week of the fieldwork experience. An occupational therapy supervisor must be available, via a variety of contact measures, to the student during all working hours. An on-site supervisor designee of another profession must be assigned while the occupational therapy supervisor is off site.	therapy services and supervision by a currently licensed or otherwise regulated occupational therapist with at least 3 years' full-time or its equivalent of professional experience. Supervision must include a minimum of 8 hours of direct supervision each week of the fieldwork experience. An occupational therapy supervisor must be available, via a variety of contact measures, to the student during all working hours. An on-site supervisor designee of another profession must be assigned while the occupational therapy supervisor is off site.	therapy assistant services and supervision by a currently licensed or otherwise regulated occupational therapist or occupational therapy assistant (under the direction of an occupational therapist) with at least 3 years' full-time or its equivalent of professional experience. Supervision must include a minimum of 8 hours of direct supervision each week of the fieldwork experience. An occupational therapy supervisor must be available, via a variety of contact measures, to the student during all working hours. An on-site supervisor designee of another profession must be assigned while the occupational therapy supervisor is off site.
C.1.18.	Document mechanisms for requiring formal evaluation of student performance on Level II fieldwork (e.g., the AOTA <i>Fieldwork Performance Evaluation for the Occupational Therapy Student</i> or equivalent).	Document mechanisms for requiring formal evaluation of student performance on Level II fieldwork (e.g., the AOTA <i>Fieldwork Performance Evaluation for the Occupational Therapy Student</i> or equivalent).	Document mechanisms for requiring formal evaluation of student performance on Level II fieldwork (e.g., the AOTA <i>Fieldwork Performance Evaluation for the Occupational Therapy Assistant Student</i> or equivalent).
C.1.19.	Ensure that students attending Level II fieldwork outside the United States are supervised by an occupational therapist who graduated from a program approved by the World Federation of Occupational Therapists and has 1 year of experience in practice.	Ensure that students attending Level II fieldwork outside the United States are supervised by an occupational therapist who graduated from a program approved by the World Federation of Occupational Therapists and has 1 year of experience in practice.	Ensure that students attending Level II fieldwork outside the United States are supervised by an occupational therapist who graduated from a program approved by the World Federation of Occupational Therapists and has 1 year of experience in practice.
<b>C.2.0. DOCTORAL EXPERIENTIAL COMPONENT</b>  The goal of the doctoral experiential component is to develop occupational therapists with advanced skills (those that are beyond a generalist level). The doctoral experiential component shall be an integral part of the program's curriculum design and shall include an in-depth experience in one or more of the following: clinical practice skills, research skills, administration, leadership, program and policy development, advocacy, education, or theory development.  The student must successfully complete all coursework and Level II fieldwork and pass a competency requirement prior to the commencement of the doctoral experiential component. The specific content and format of the competency requirement is determined by the program. Examples include a written comprehensive exam, oral exam, NBCOT certification exam readiness tool, and the NBCOT practice exams.			



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C.2.1.	Ensure that the doctoral experiential component is designed and administered by faculty and provided in setting(s) consistent with the program's curriculum design, including individualized specific objectives and plans for supervision.	(No related Standard)	(No related Standard)
C.2.2.	Ensure that there is a memorandum of understanding that, at a minimum, includes individualized specific objectives, plans for supervision or mentoring, and responsibilities of all parties.	(No related Standard)	(No related Standard)
C.2.3.	Require that the length of this doctoral experiential component be a minimum of 16 weeks (640 hours). This may be completed on a part-time basis and must be consistent with the individualized specific objectives and culminating project. No more than 20% of the 640 hours can be completed outside of the mentored practice setting(s). Prior fieldwork or work experience may not be substituted for this experiential component.	(No related Standard)	(No related Standard)
C.2.4.	Ensure that the student is mentored by an individual with expertise consistent with the student's area of focus. The mentor does not have to be an occupational therapist.	(No related Standard)	(No related Standard)
	MENTORING IS DEFINED AS A RELATIONSHIP BETWEEN TWO PEOPLE IN WHICH ONE PERSON (THE MENTOR) IS DEDICATED TO THE PERSONAL AND PROFESSIONAL GROWTH OF THE OTHER (THE MENTEE). A MENTOR HAS MORE EXPERIENCE AND KNOWLEDGE THAN THE MENTEE. THE PROGRAM MUST HAVE A SYSTEM TO ENSURE THAT MENTOR HAS DEMONSTRATED EXPERTISE IN ONE OR MORE OF THE FOLLOWING AREAS IDENTIFIED AS THE STUDENT'S FOCUSED AREA OF STUDY: CLINICAL PRACTICE SKILLS, RESEARCH SKILLS, ADMINISTRATION, LEADERSHIP, PROGRAM AND POLICY DEVELOPMENT, ADVOCACY, EDUCATION, OR THEORY DEVELOPMENT.		
C.2.5.	Document a formal evaluation mechanism for objective assessment of the student's performance during and at the completion of the doctoral experiential component.	(No related Standard)	(No related Standard)

## GLOSSARY

### Accreditation Standards for a Doctoral-Degree-Level Educational Program for the Occupational Therapist, Masters-Degree-Level Educational Program for the Occupational Therapist, and Associate-Degree-Level Educational Program for the Occupational Therapy Assistant

*Definitions given below are for the purposes of these documents.*

**ABILITY TO BENEFIT:** A phrase that refers to a student who does not have a high school diploma or its recognized equivalent, but is eligible to receive funds under the Title IV Higher Education Act programs after taking an independently administered examination and achieving a score, specified by the Secretary of the U.S. Department of Education (USDE), indicating that the student has the ability to benefit from the education being offered.

**ACADEMIC CALENDAR:** The official institutional document that lists registration dates, semester/quarter stop and start dates, holidays, graduation dates, and other pertinent events. Generally, the academic year is divided into two major semesters, each approximately 14 to 16 weeks long. A smaller number of institutions have quarters rather than semesters. Quarters are approximately 10 weeks long; there are three major quarters and the summer session.

**ACTIVITY:** A term that describes a class of human actions that are goal directed (AOTA, 2008b).

**ADVANCED:** The stage of being beyond the elementary or introductory.

**AFFILIATE:** An entity that formally cooperates with a sponsoring institution in implementing the occupational therapy educational program.

**AREAS OF OCCUPATION:** Activities in which people engage: activities of daily living, instrumental activities of daily living, rest and sleep, education, work, play, leisure, and social participation.

**ASSIST:** To aid, help, or hold an auxiliary position.

**BODY FUNCTIONS:** The physiological functions of body systems (including psychological functions).

**BODY STRUCTURES:** Anatomical parts of the body such as organs, limbs, and their components.

**CARE COORDINATION:** The process that links clients with appropriate services and resources.

**CASE MANAGEMENT:** A system to ensure that individuals receive appropriate health care services.

**CLIENT:** The term used to name the entity that receives occupational therapy services. Clients may include (1) individuals and other persons relevant to the client's life including family, caregivers, teachers, employers, and others who may also help or be served indirectly; (2) organizations, such as businesses, industries, or agencies; and (3) populations within a community (AOTA, 2008b).

**CLIENT-CENTERED SERVICE DELIVERY:** An orientation that honors the desires and priorities of clients in designing and implementing interventions.

**CLIENT FACTORS:** Factors that reside within the client and that may affect performance in areas of occupation. Client factors include body functions and body structures.

**CLINICAL REASONING:** Complex multifaceted cognitive process used by practitioners to plan, direct, perform, and reflect on intervention.

**COLLABORATE:** To work together with a mutual sharing of thoughts and ideas.

**COMPETENT:** To have the requisite abilities/qualities and capacity to function in a professional environment.

**CONSORTIUM:** Two or more higher education institutions having a formal agreement to share resources for the operation of an educational program.

**CONSUMER:** The direct and/or indirect recipient of educational and/or practitioner services offered.

**CONTEXT/CONTEXTUAL FACTORS AND ENVIRONMENT:**

**CONTEXT:** The variety of interrelated conditions within and surrounding the client that influence performance. Contexts include cultural, personal, temporal, and virtual aspects.

**ENVIRONMENT:** The external physical and social environment that surrounds the client and in which the client's daily life occupations occur.

**CONTEXT OF SERVICE DELIVERY:** The knowledge and understanding of the various contexts in which occupational therapy services are provided.

**COOPERATIVE PROGRAM:** Two administrative entities having a cooperative agreement to offer a single program. At least one of the entities must hold degree-granting authority as required by the ACOTE Standards.

**CRITERION-REFERENCED:** Tests that compare the performance of an individual to that of another group, known as the *norm group*.

**CULMINATING PROJECT:** A project that is completed by a doctoral student that demonstrates the student's ability to relate theory to practice and to synthesize advanced knowledge in a practice area.

**CURRICULUM DESIGN:** An overarching set of assumptions that explains how the curriculum is planned, implemented, and evaluated. Typically, a curriculum design includes educational goals and curriculum threads and provides a clear rationale for the selection of content, the determination of scope of content, and the sequence of the content. A curriculum design is expected to be consistent with the mission and philosophy of the sponsoring institution and the program.

**CURRICULUM THREADS:** Curriculum threads, or *themes*, are identified by the program as areas of study and development that follow a path through the curriculum and represent the unique qualities of the program, as demonstrated by the program's graduates. Curriculum threads are typically based on the profession's and program's vision, mission, and philosophy (e.g., occupational needs of society, critical thinking/professional reasoning, diversity/globalization). (AOTA, 2008a).

**DIAGNOSIS:** The process of analyzing the cause or nature of a condition, situation, or problem. Diagnosis as stated in Standard B.4.0. refers to the occupational therapist's ability to analyze a problem associated with occupational performance and participation.

**DISTANCE EDUCATION:** Education that uses one or more of the technologies listed below to deliver instruction to students who are separated from the instructor and to support regular and substantive interaction between the students and the instructor, either synchronously or asynchronously. The technologies may include

- The Internet;
- One-way and two-way transmissions through open broadcast, closed circuit, cable, microwave, broadband lines, fiber optics, satellite, or wireless communications devices;
- Audio conferencing; or
- Video cassettes, DVDs, and CD-ROMs, if the cassettes, DVDs, or CD-ROMs are used in a course.

**DISTANCE EDUCATION DELIVERY MODEL:** There is one curriculum with some (or all) of the students receiving the didactic portion of the program taught via distance education from the primary campus. The didactic portion of the program is delivered to all students (irrespective of whether it is delivered in class or by distance education) by the same instructors. Students may receive the experiential and lab components at either the primary campus or at other locations.

**DRIVER REHABILITATION:** Specialized evaluation and training to develop mastery of specific skills and techniques to effectively drive a motor vehicle independently and in accordance with state department of motor vehicles regulations.

**ENTRY-LEVEL OCCUPATIONAL THERAPIST:** The outcome of the occupational therapy educational and certification process; an individual prepared to begin generalist practice as an occupational therapist with less than 1 year of experience.

**ENTRY-LEVEL OCCUPATIONAL THERAPY ASSISTANT:** The outcome of the occupational therapy educational and certification process; an individual prepared to begin generalist practice as an occupational therapy assistant with less than 1 year of experience.

**FACULTY:**

**FACULTY, CORE:** Persons who are resident faculty, including the program director and academic fieldwork coordinator, appointed to and employed primarily in the occupational therapy educational program.

**FACULTY, FULL TIME:** Core faculty members who hold an appointment that are full-time, as defined by the institution, and whose job responsibilities include teaching and/or contributing to the delivery of the designed curriculum regardless of the position title (e.g., full-time instructional staff, academic fieldwork coordinator, and clinical instructors would be considered faculty).

**FACULTY, PART TIME:** Core faculty members who hold an appointment that is considered by that institution to constitute less than full-time service and whose job responsibilities include teaching and/or contributing to the delivery of the designed curriculum regardless of the position title.

**FACULTY, ADJUNCT:** Persons who are responsible for teaching at least 50% of a course and are part-time, nonsalaried, non-tenure-track faculty members who are paid for each class they teach.

**FIELDWORK COORDINATOR:** Faculty member who is responsible for the development, implementation, management, and evaluation of fieldwork education.

**FRAME OF REFERENCE:** A set of interrelated, internally consistent concepts, definitions, postulates, and principles that provide a systematic description of a practitioner's interaction with clients. A frame of reference is intended to link theory to practice.

**FULL-TIME EQUIVALENT (FTE):** An equivalent position for a full-time faculty member (as defined by the institution). A full-time equivalent can be made up of no more than 3 individuals.

**GRADUATION RATE:** The total number of students who graduated from a program within 150% of the published length of the program, divided by the number of students on the roster who started in the program.

**HABITS:** "Automatic behavior that is integrated into more complex patterns that enable people to function on a day-to-day basis" (Neidstadt & Crepeau, 1998).

**HEALTH LITERACY:** Degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (National Network of Libraries of Medicine, 2011).

**INTERPROFESSIONAL COLLABORATIVE PRACTICE:** "Multiple health workers from different professional backgrounds working together with patients, families, careers, and communities to deliver the highest quality of care" (World Health Organization, 2010).

**MEMORANDUM OF UNDERSTANDING (MOU):** A document outlining the terms and details of an agreement between parties, including each parties' requirements and responsibilities. A memorandum of understanding may be signed by any individual who is authorized by the institution to sign fieldwork memoranda of understanding on behalf of the institution.

**MENTORING:** A relationship between two people in which one person (the mentor) is dedicated to the personal and professional growth of the other (the mentee). A mentor has more experience and knowledge than the mentee.

**MISSION:** A statement that explains the unique nature of a program or institution and how it helps fulfill or advance the goals of the sponsoring institution, including religious missions.

**MODALITIES:** Application of a therapeutic agent, usually a physical agent modality.

**DEEP THERMAL MODALITIES:** Modalities such as therapeutic ultrasound and phonophoresis.

**ELECTROTHERAPEUTIC MODALITIES:** Modalities such as biofeedback, neuromuscular electrical stimulation, functional electrical stimulation, transcutaneous electrical nerve stimulation, electrical stimulations for tissue repair, high-voltage galvanic stimulation, and iontophoresis.

**MECHANICAL MODALITIES:** Modalities such as vasopneumatic devices and continuous passive motion.

**SUPERFICIAL THERMAL MODALITIES:** Modalities such as hydrotherapy, whirlpool, cryotherapy, fluidotherapy, hot packs, paraffin, water, and infrared.

**MODEL OF PRACTICE:** The set of theories and philosophies that defines the views, beliefs, assumptions, values, and domain of concern of a particular profession or discipline. Models of practice delimit the boundaries of a profession.

**OCCUPATION:** "Activities . . . of everyday life, named, organized and given value and meaning by individuals and a culture. Occupation is everything that people do to occupy themselves, including looking after themselves . . . enjoying life . . . and contributing to the social and economic fabric of their communities" (Law, Polatajko, Baptiste, & Townsend, 1997).

**OCCUPATIONAL PROFILE:** An analysis of a client's occupational history, routines, interests, values, and needs to engage in occupations and occupational roles.

**OCCUPATIONAL THERAPY:** The art and science of applying occupation as a means to effect positive, measurable change in the health status and functional outcomes of a client by a qualified occupational therapist and/or occupational therapy assistant (as appropriate).

**OCCUPATIONAL THERAPY PRACTITIONER:** An individual who is initially credentialed as an occupational therapist or an occupational therapy assistant.

**PARTICIPATION:** Active engagement in occupations.

**PERFORMANCE PATTERNS:** Patterns of behavior related to daily life activities that are habitual or routine. Performance patterns include habits, routines, rituals, and roles.

**PERFORMANCE SKILLS:** Features of what one does, not what one has, related to observable elements of action that have implicit functional purposes. Performance skills include motor and praxis, sensory/perceptual, emotional regulation, cognitive, and communication and social skills.

**PHILOSOPHY:** The underlying belief and value structure for a program that is consistent with the sponsoring institution and which permeates the curriculum and the teaching learning process.

**POPULATION-BASED INTERVENTIONS:** Interventions focused on promoting the overall health status of the community by preventing disease, injury, disability, and premature death. A population-based health intervention can include assessment of the community's needs, health promotion and public education, disease and disability prevention, monitoring of services, and media interventions. Most interventions are tailored to reach a subset of a population, although some may be targeted toward the population at large. Populations and subsets may be defined by geography, culture, race and ethnicity, socioeconomic status, age, or other characteristics. Many of these characteristics relate to the health of the described population (Keller, Schaffer, Lia-Hoagberg, & Strohschein, 2002).

**PREPARATORY METHODS:** Intervention techniques focused on client factors to help a client's function in specific activities.

**PROGRAM DIRECTOR** (associate-degree-level occupational therapy assistant): An initially certified occupational therapist or occupational therapy assistant who is licensed or credentialed according to regulations in the state or jurisdiction in which the program is located. The program director must hold a minimum of a master's degree.

**PROGRAM DIRECTOR** (master's-degree-level occupational therapist): An initially certified occupational therapist who is licensed or credentialed according to regulations in the state or jurisdiction in which the program is located. The program director must hold a doctoral degree.

**PROGRAM DIRECTOR** (doctoral-degree-level occupational therapist): An initially certified occupational therapist who is licensed or credentialed according to regulations in the state or jurisdiction in which the program is located. The program director must hold a doctoral degree.

**PROGRAM EVALUATION:** A continuing system for routinely and systematically analyzing data to determine the extent to which the program is meeting its stated goals and objectives.

**PURPOSEFUL ACTIVITY:** "An activity used in treatment that is goal directed and that the [client] sees as meaningful or purposeful" (Low, 2002).

**RECOGNIZED REGIONAL OR NATIONAL ACCREDITING AUTHORITY:** Regional and national accrediting agencies recognized by the USDE and/or the Council for Higher Education Accreditation (CHEA) to accredit postsecondary educational programs/institutions. The purpose of recognition is to ensure that the accrediting agencies are reliable authorities for evaluating quality education or training programs in the institutions they accredit.

**Regional accrediting bodies recognized by USDE:**

- Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges (ACCJC/WASC)
- Accrediting Commission for Senior Colleges and Universities, Western Association of Schools and Colleges (ACSCU/WASC)
- Commission on Colleges, Southern Association of Colleges and Schools (SACS)

- Commission on Institutions of Higher Education, New England Association of Schools and Colleges (CIHE/NEASC)
- Higher Learning Commission, North Central Association of Colleges and Schools (HLC)
- Middle States Commission on Higher Education, Middle States Association of Colleges and Schools (MSCHE)
- Northwest Commission on Colleges and Universities (NWCCU)

**National accrediting bodies recognized by USDE:**

- Accrediting Bureau of Health Education Schools (ABHES)
- Accrediting Commission of Career Schools and Colleges (ACCSC)
- Accrediting Council for Continuing Education and Training (ACCET)
- Council on Occupational Education (COE)
- Distance Education Accrediting Commission (DEAC)
- New York State Board of Regents

**National accrediting bodies recognized by CHEA:**

- Accrediting Council for Independent Colleges and Schools (ACICS)

**REFLECTIVE PRACTICE:** Thoughtful consideration of one's experiences and knowledge when applying such knowledge to practice. Reflective practice includes being coached by professionals.

**RELEASE TIME:** Period when a person is freed from regular duties, especially teaching, to allow time for other tasks or activities.

**RETENTION RATE:** A measure of the rate at which students persist in their educational program, calculated as the percentage of students on the roster, after the add period, from the beginning of the previous academic year who are again enrolled at, or graduated prior to, the beginning of the subsequent academic year.

**SCHOLARSHIP:** "A systematic investigation ... designed to develop or to contribute to generalizable knowledge" (45 CFR § 46). Scholarship is made public, subject to review, and part of the discipline or professional knowledge base (Glassick, Huber, & Maeroff, 1997). It allows others to build on it and further advance the field (AOTA, 2009).

**SCHOLARSHIP OF DISCOVERY:** Engagement in activity that leads to the development of "knowledge for its own sake." The Scholarship of Discovery encompasses original research that contributes to expanding the knowledge base of a discipline (Boyer, 1990).

**SCHOLARSHIP OF INTEGRATION:** Investigations making creative connections both within and across disciplines to integrate, synthesize, interpret, and create new perspectives and theories (Boyer, 1990).

**SCHOLARSHIP OF APPLICATION:** Practitioners apply the knowledge generated by Scholarship of Discovery or Integration to address real problems at all levels of society (Boyer, 1990). In occupational therapy, an example would be the application of theoretical knowledge to practice interventions or to teaching in the classroom.

**SCHOLARSHIP OF TEACHING AND LEARNING:** "Involves the systematic study of teaching and/or learning and the public sharing and review of such work through presentations, publications, and performances" (McKinney, 2007, p. 10).

**SENIOR COLLEGE:** A college that holds degree-granting authority that includes baccalaureate-degree-level education.

**SKILL:** The ability to use one's knowledge effectively and readily in execution or performance.

**SPONSORING INSTITUTION:** The identified legal entity that assumes total responsibility for meeting the minimal standards for ACOTE accreditation.

**STRATEGIC PLAN:** A comprehensive plan that articulates the program's future vision and guides the program development (e.g., faculty recruitment and professional growth, changes in the curriculum design, priorities in academic resources, procurement of fieldwork sites). A program's strategic plan must include, but need not be limited to,

- Evidence that the plan is based on program evaluation and an analysis of external and internal environments,
- Long-term goals that address the vision and mission of both the institution and program, as well as specific needs of the program,
- Specific measurable action steps with expected timelines by which the program will reach its long-term goals,

- Person(s) responsible for action steps, and
- Evidence of periodic updating of action steps and long-term goals as they are met or as circumstances change.

**SUPERVISE:** To direct and inspect the performance of workers or work.

**SUPERVISION, DIRECT:** Two-way communication that occurs in real time and offers both audio and visual capabilities to ensure opportunities for timely feedback.

**SUPERVISOR:** One who ensures that tasks assigned to others are performed correctly and efficiently.

**THEORY:** A set of interrelated concepts used to describe, explain, or predict phenomena.

**TELEHEALTH:** The application of evaluative, consultative, preventative, and therapeutic services delivered through telecommunication and information technologies. Occupational therapy services provided by means of a telehealth service delivery model can be synchronous, that is, delivered through interactive technologies in real time, or asynchronous, using store-and-forward technologies. Occupational therapy practitioners can use telehealth as a mechanism to provide services at a location that is physically distant from the client, thereby allowing for services to occur where the client lives, works, and plays, if that is needed or desired (OTA, 2010).

**TRANSFER OF CREDIT:** A term used in higher education to award a student credit for courses earned in another institution prior to admission to the occupational therapy or occupational therapy assistant program.

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**2018 Accreditation Council for Occupational Therapy Education (ACOTE®) Standards and Interpretive Guide  
(effective July 31, 2020)**

STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A BACCALAUREATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
<b>PREAMBLE</b>				
	<p>The dynamic nature of contemporary health and human services delivery systems provides opportunities for the occupational therapist to possess the necessary knowledge and skills as a direct care provider, consultant, educator, manager, leader, researcher, and advocate for the profession and the consumer.</p> <p>A graduate from an ACOTE-accredited doctoral-degree-level occupational therapy program must</p> <ul style="list-style-type: none"> <li>• Have acquired, as a foundation for professional study, a breadth and depth of knowledge in the liberal arts and sciences and an understanding of issues related to diversity.</li> <li>• Be educated as a generalist with a broad exposure to the delivery models and systems used in settings where occupational therapy is currently practiced and where it is emerging as a service.</li> <li>• Have achieved entry-level competence through a combination of didactic, fieldwork, and capstone education.</li> <li>• Be prepared to evaluate and choose appropriate theory to inform practice.</li> <li>• Be prepared to articulate and apply occupational therapy theory through evidence-based evaluations and interventions to achieve expected outcomes as related to occupation.</li> <li>• Be prepared to articulate and apply</li> </ul>	<p>The dynamic nature of contemporary health and human services delivery systems requires the occupational therapist to possess basic skills as a direct care provider, consultant, educator, manager, leader, researcher, and advocate for the profession and the consumer.</p> <p>A graduate from an ACOTE-accredited master's-degree-level occupational therapy program must</p> <ul style="list-style-type: none"> <li>• Have acquired, as a foundation for professional study, a breadth and depth of knowledge in the liberal arts and sciences and an understanding of issues related to diversity.</li> <li>• Be educated as a generalist with a broad exposure to the delivery models and systems used in settings where occupational therapy is currently practiced and where it is emerging as a service.</li> <li>• Have achieved entry-level competence through a combination of didactic and fieldwork education.</li> <li>• Be prepared to choose appropriate theory to inform practice.</li> <li>• Be prepared to articulate and apply occupational therapy theory through evidence-based evaluations and interventions to achieve expected outcomes as related to occupation.</li> <li>• Be prepared to articulate and apply therapeutic use of occupations with</li> </ul>	<p>The dynamic nature of contemporary health and human services delivery systems requires the occupational therapy assistant to possess basic skills as a direct care provider, educator, manager, leader, and advocate for the profession and the consumer.</p> <p>A graduate from an ACOTE-accredited baccalaureate-degree-level occupational therapy assistant program must</p> <ul style="list-style-type: none"> <li>• Have acquired an educational foundation in the liberal arts and sciences, including a focus on issues related to diversity.</li> <li>• Be educated as a generalist with a broad exposure to the delivery models and systems used in settings where occupational therapy is currently practiced and where it is emerging as a service.</li> <li>• Have achieved entry-level competence through a combination of didactic and fieldwork education.</li> <li>• Define theory as it applies to practice.</li> <li>• Be prepared to articulate and apply occupational therapy principles and intervention tools to achieve expected outcomes as related to occupation.</li> <li>• Be prepared to articulate and apply therapeutic use of occupations with persons, groups, and populations for the purpose of facilitating performance and participation in</li> </ul>	<p>The dynamic nature of contemporary health and human services delivery systems requires the occupational therapy assistant to possess basic skills as a direct care provider, educator, manager, leader, and advocate for the profession and the consumer.</p> <p>A graduate from an ACOTE-accredited associate-degree-level occupational therapy assistant program must</p> <ul style="list-style-type: none"> <li>• Have acquired an educational foundation in the liberal arts and sciences, including a focus on issues related to diversity.</li> <li>• Be educated as a generalist with a broad exposure to the delivery models and systems used in settings where occupational therapy is currently practiced and where it is emerging as a service.</li> <li>• Have achieved entry-level competence through a combination of didactic and fieldwork education.</li> <li>• Define theory as it applies to practice.</li> <li>• Be prepared to articulate and apply occupational therapy principles and intervention tools to achieve expected outcomes as related to occupation.</li> <li>• Be prepared to articulate and apply therapeutic use of occupations with persons, groups, and populations for the purpose of facilitating performance and 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STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A BACCALAUREATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
	<p>therapeutic use of occupations with persons, groups, and populations for the purpose of facilitating performance and participation in activities, occupations, and roles and situations in home, school, workplace, community, and other settings, as informed by the Occupational Therapy Practice Framework.</p> <ul style="list-style-type: none"> <li>Be able to plan and apply evidence-based occupational therapy interventions to address the physical, cognitive, functional cognitive, psychosocial, sensory, and other aspects of performance in a variety of contexts and environments to support engagement in everyday life activities that affect health, well-being, and quality of life, as informed by the Occupational Therapy Practice Framework.</li> <li>Be prepared to be a lifelong learner to keep current with evidence-based professional practice.</li> <li>Uphold the ethical standards, values, and attitudes of the occupational therapy profession.</li> <li>Understand the distinct roles and responsibilities of the occupational therapist and the occupational therapy assistant in the supervisory process for service delivery.</li> <li>Be prepared to effectively collaborate with and supervise occupational therapy assistants in service delivery.</li> <li>Be prepared to effectively communicate and work interprofessionally with all who provide services and programs for</li> </ul>	<p>persons, groups, and populations for the purpose of facilitating performance and participation in activities, occupations, and roles and situations in home, school, workplace, community, and other settings, as informed by the Occupational Therapy Practice Framework.</p> <ul style="list-style-type: none"> <li>Be able to plan and apply evidence-based occupational therapy interventions to address the physical, cognitive, functional cognitive, psychosocial, sensory, and other aspects of performance in a variety of contexts and environments to support engagement in everyday life activities that affect 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and populations.</li> <li>Be prepared to advocate as a professional for access to occupational therapy services offered and for the</li> </ul>	<p>activities, occupations, and roles and situations in home, school, workplace, community, and other settings, as informed by the Occupational Therapy Practice Framework.</p> <ul style="list-style-type: none"> <li>Be able to apply evidence-based occupational therapy interventions to address the physical, cognitive, functional cognitive, psychosocial, sensory, and other aspects of performance in a variety of contexts and environments to support engagement in everyday life activities that affect health, well-being, and quality of life, as informed by the Occupational Therapy Practice Framework.</li> <li>Be prepared to be a lifelong learner to keep current with evidence-based professional practice.</li> <li>Uphold the ethical standards, values, and attitudes of the occupational therapy profession.</li> <li>Understand the distinct roles and responsibilities of the occupational therapist and the occupational therapy assistant in the supervisory process for service delivery.</li> <li>Be prepared to effectively collaborate with occupational therapists in service delivery.</li> <li>Be prepared to effectively communicate and work interprofessionally with all who provide services and programs for persons, groups, and populations.</li> <li>Be prepared to advocate as a</li> </ul>

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	<p>persons, groups, and populations.</p> <ul style="list-style-type: none"> <li>Be prepared to advocate as a professional for access to occupational therapy services offered and for the recipients of those services.</li> <li>Be prepared to be an effective consumer of the latest research and knowledge bases that support occupational therapy practice and contribute to the growth and dissemination of research and knowledge.</li> <li>Demonstrate in-depth knowledge of delivery models, policies, and systems related to practice in settings where occupational therapy is currently practiced and settings where it is emerging.</li> <li>Demonstrate active involvement in professional development, leadership, and advocacy.</li> <li>Demonstrate the ability to synthesize in-depth knowledge in a practice area through the development and completion of a doctoral capstone in one or more of the following areas: clinical practice skills, research skills, administration, leadership, program and policy development, advocacy, education, and theory development.</li> </ul>	<ul style="list-style-type: none"> <li>Be prepared to advocate as a professional for access to occupational therapy services offered and for the recipients of those services.</li> <li>Be prepared to be an effective consumer of the latest research and knowledge bases that support occupational therapy practice and contribute to the growth and dissemination of research and knowledge.</li> <li>Demonstrate the ability to be actively involved in professional development, leadership, and advocacy.</li> </ul>	<p>recipients of those services.</p> <ul style="list-style-type: none"> <li>Demonstrate active involvement in professional development, leadership, and advocacy.</li> <li>Demonstrate the ability to synthesize in-depth knowledge in a practice area through the development and completion of a baccalaureate project in one or more of the following areas: clinical practice skills, administration, leadership, advocacy, and education.</li> </ul>	<p>professional for access to occupational therapy services offered and for the recipients of those services.</p> <ul style="list-style-type: none"> <li>Demonstrate active involvement in professional development, leadership, and advocacy.</li> </ul>
FOR ALL STANDARDS LISTED BELOW, IF ONE COMPONENT OF THE STANDARD IS NONCOMPLIANT, THE ENTIRE STANDARD WILL BE CITED. THE PROGRAM MUST DEMONSTRATE COMPLIANCE WITH ALL COMPONENTS OF THE STANDARD IN ORDER FOR THE AREA OF NONCOMPLIANCE TO BE REMOVED.				

STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A BACCALAUREATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
<b>SECTION A: GENERAL REQUIREMENTS</b>				
<b>A.1.0. SPONSORSHIP AND ACCREDITATION</b>				
<b>A.1.1. Institutional Accreditation</b>				
A.1.1.	The sponsoring institution(s) and affiliates, if any, must be accredited by the recognized regional accrediting authority. For programs in countries other than the United States, ACOTE will determine an equivalent external review process.	The sponsoring institution(s) and affiliates, if any, must be accredited by the recognized regional accrediting authority. For programs in countries other than the United States, ACOTE will determine an equivalent external review process.	The sponsoring institution(s) and affiliates, if any, must be accredited by the recognized regional accrediting authority.	The sponsoring institution(s) and affiliates, if any, must be accredited by the recognized regional or national accrediting authority.
<b>A.1.2. Institutional Authority</b>				
A.1.2.	Sponsoring institution(s) must be authorized under applicable law or other acceptable authority to provide a program of postsecondary education and have appropriate doctoral degree-granting authority.	Sponsoring institution(s) must be authorized under applicable law or other acceptable authority to provide a program of postsecondary education and have appropriate degree-granting authority.	Sponsoring institution(s) must be authorized under applicable law or other acceptable authority to provide a program of postsecondary education and have appropriate degree-granting authority, or the institution must be a program offered within the military services.	Sponsoring institution(s) must be authorized under applicable law or other acceptable authority to provide a program of postsecondary education and have appropriate degree-granting authority, or the institution must be a program offered within the military services.
<b>A.1.3. Institutional Setting</b>				
A.1.3.	Accredited occupational therapy educational programs must be established in senior colleges, universities, or medical schools.	Accredited occupational therapy educational programs must be established in senior colleges, universities, or medical schools.	Accredited occupational therapy assistant educational programs must be established in community, technical, junior, and senior colleges; universities; medical schools; or military institutions.	Accredited occupational therapy assistant educational programs must be established in community, technical, junior, and senior colleges; universities; medical schools; vocational schools or institutions; or military institutions.
<b>A.1.4. Sponsoring Institution Responsibilities</b>				
A.1.4.	The sponsoring institution(s) must assume primary responsibility for appointment of faculty, admission of students, and curriculum planning at all locations where the program is offered. This would include course content, satisfactory completion of the educational program, and granting of the degree. The sponsoring institution(s) must also be responsible for the coordination of classroom teaching and supervised fieldwork practice and for providing assurance that the practice activities assigned to students in a fieldwork setting are appropriate to the program.	The sponsoring institution(s) must assume primary responsibility for appointment of faculty, admission of students, and curriculum planning at all locations where the program is offered. This would include course content, satisfactory completion of the educational program, and granting of the degree. The sponsoring institution(s) must also be responsible for the coordination of classroom teaching and supervised fieldwork practice and for providing assurance that the practice activities assigned to students in a fieldwork setting are appropriate to the program.	The sponsoring institution(s) must assume primary responsibility for appointment of faculty, admission of students, and curriculum planning at all locations where the program is offered. This would include course content, satisfactory completion of the educational program, and granting of the degree. The sponsoring institution(s) must also be responsible for the coordination of classroom teaching and supervised fieldwork practice and for providing assurance that the practice activities assigned to students in a fieldwork setting are appropriate to the program.	The sponsoring institution(s) must assume primary responsibility for appointment of faculty, admission of students, and curriculum planning at all locations where the program is offered. This would include course content, satisfactory completion of the educational program, and granting of the degree. The sponsoring institution(s) must also be responsible for the coordination of classroom teaching and supervised fieldwork practice and for providing assurance that the practice activities assigned to students in a fieldwork setting are appropriate to the program.



STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A BACCALAUREATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
	THE DEGREES MOST COMMONLY CONFERRED ARE THE OCCUPATIONAL THERAPY DOCTORATE (OTD) AND DOCTOR OF OCCUPATIONAL THERAPY (DrOT).	THE DEGREES MOST COMMONLY CONFERRED ARE THE MASTER OF OCCUPATIONAL THERAPY (MOT), MASTER OF SCIENCE IN OCCUPATIONAL THERAPY (MSOT), AND MASTER OF SCIENCE (MS). PROGRAMS OFFERING COMBINED BACCALAUREATE/MASTER'S (BS/MS OR BS/MOT) DEGREES ARE STRONGLY ENCOURAGED TO AVOID USING "BACCALAUREATE IN OCCUPATIONAL THERAPY" AS THE BACCALAUREATE PORTION OF THE DEGREE NAME TO AVOID CONFUSING THE PUBLIC. DEGREE NAMES FOR THE BACCALAUREATE PORTION OF THE PROGRAM MOST COMMONLY USED ARE "BACCALAUREATE IN HEALTH SCIENCES," "BACCALAUREATE IN ALLIED HEALTH," "BACCALAUREATE IN OCCUPATIONAL SCIENCE," AND "BACCALAUREATE IN HEALTH STUDIES."	THE DEGREES MOST COMMONLY CONFERRED ARE THE BACHELOR OF SCIENCE (BS) AND THE BACHELOR OF ARTS (BA).	THE DEGREES MOST COMMONLY CONFERRED ARE THE ASSOCIATE OF APPLIED SCIENCE (AAS) AND ASSOCIATE OF SCIENCE (AS).
<b>A.1.5. Notification Requirements</b>				
A.1.5.	<p>The program must:</p> <ul style="list-style-type: none"> <li>• Inform ACOTE of the transfer of program sponsorship or change of the institution's name within 30 days of the transfer or change.</li> <li>• Inform ACOTE within 30 days of the date of notification of any adverse accreditation action taken to change the sponsoring institution's accreditation status to probation or withdrawal of accreditation.</li> <li>• Notify and receive ACOTE approval for any significant program changes prior to the admission of students into the new/changed program.</li> <li>• Inform ACOTE within 30 days of the resignation of the program director or appointment of a new or interim program director.</li> <li>• Pay accreditation fees within 90 days of the invoice date.</li> </ul>	<p>The program must:</p> <ul style="list-style-type: none"> <li>• Inform ACOTE of the transfer of program sponsorship or change of the institution's name within 30 days of the transfer or change.</li> <li>• Inform ACOTE within 30 days of the date of notification of any adverse accreditation action taken to change the sponsoring institution's accreditation status to probation or withdrawal of accreditation.</li> <li>• Notify and receive ACOTE approval for any significant program changes prior to the admission of students into the new/changed program.</li> <li>• Inform ACOTE within 30 days of the resignation of the program director or appointment of a new or interim program director.</li> <li>• Pay accreditation fees within 90 days of the invoice date.</li> </ul>	<p>The program must:</p> <ul style="list-style-type: none"> <li>• Inform ACOTE of the transfer of program sponsorship or change of the institution's name within 30 days of the transfer or change.</li> <li>• Inform ACOTE within 30 days of the date of notification of any adverse accreditation action taken to change the sponsoring institution's accreditation status to probation or withdrawal of accreditation.</li> <li>• Notify and receive ACOTE approval for any significant program changes prior to the admission of students into the new/changed program.</li> <li>• Inform ACOTE within 30 days of the resignation of the program director or appointment of a new or interim program director.</li> <li>• Pay accreditation fees within 90 days of the invoice date.</li> </ul>	<p>The program must:</p> <ul style="list-style-type: none"> <li>• Inform ACOTE of the transfer of program sponsorship or change of the institution's name within 30 days of the transfer or change.</li> <li>• Inform ACOTE within 30 days of the date of notification of any adverse accreditation action taken to change the sponsoring institution's accreditation status to probation or withdrawal of accreditation.</li> <li>• Notify and receive ACOTE approval for any significant program changes prior to the admission of students into the new/changed program.</li> <li>• Inform ACOTE within 30 days of the resignation of the program director or appointment of a new or interim program director.</li> <li>• Pay accreditation fees within 90 days of the invoice date.</li> </ul>

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	<ul style="list-style-type: none"> <li>• Submit a Report of Self-Study and other required reports (e.g., Interim Report, Plan of Correction, Progress Report) within the period of time designated by ACOTE. All reports must be complete and contain all requested information.</li> <li>• Agree to a site visit date before the end of the period for which accreditation was previously awarded.</li> <li>• Demonstrate honesty and integrity in all interactions with ACOTE.</li> <li>• Comply with the current requirements of all ACOTE policies.</li> </ul>	<ul style="list-style-type: none"> <li>• Submit a Report of Self-Study and other required reports (e.g., Interim Report, Plan of Correction, Progress Report) within the period of time designated by ACOTE. All reports must be complete and contain all requested information.</li> <li>• Agree to a site visit date before the end of the period for which accreditation was previously awarded.</li> <li>• Demonstrate honesty and integrity in all interactions with ACOTE.</li> <li>• Comply with the current requirements of all ACOTE policies.</li> </ul>	<ul style="list-style-type: none"> <li>• Submit a Report of Self-Study and other required reports (e.g., Interim Report, Plan of Correction, Progress Report) within the period of time designated by ACOTE. All reports must be complete and contain all requested information.</li> <li>• Agree to a site visit date before the end of the period for which accreditation was previously awarded.</li> <li>• Demonstrate honesty and integrity in all interactions with ACOTE.</li> <li>• Comply with the current requirements of all ACOTE policies.</li> </ul>	<ul style="list-style-type: none"> <li>• Submit a Report of Self-Study and other required reports (e.g., Interim Report, Plan of Correction, Progress Report) within the period of time designated by ACOTE. All reports must be complete and contain all requested information.</li> <li>• Agree to a site visit date before the end of the period for which accreditation was previously awarded.</li> <li>• Demonstrate honesty and integrity in all interactions with ACOTE.</li> <li>• Comply with the current requirements of all ACOTE policies.</li> </ul>
<b>A.2.0. ACADEMIC RESOURCES</b>				
<b>A.2.1. Program Director</b>				
A.2.1.	<ul style="list-style-type: none"> <li>• The program must identify an individual as the program director who is assigned to the occupational therapy educational program as a full-time core faculty member as defined by ACOTE. The director may be assigned other institutional duties that do not interfere with the management and administration of the program. The institution must document that the program director has sufficient release time to ensure that the needs of the program are being met.</li> <li>• The program director must be an initially certified occupational therapist who is licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the program is located. The program director must hold a doctoral degree awarded by an institution that is accredited by a regional accrediting body recognized by the U.S. Department of Education (USDE). The doctoral degree is not limited to</li> </ul>	<ul style="list-style-type: none"> <li>• The program must identify an individual as the program director who is assigned to the occupational therapy educational program as a full-time core faculty member as defined by ACOTE. The director may be assigned other institutional duties that do not interfere with the management and administration of the program. The institution must document that the program director has sufficient release time to ensure that the needs of the program are being met.</li> <li>• The program director must be an initially certified occupational therapist who is licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the program is located. The program director must hold a doctoral degree awarded by an institution that is accredited by a regional accrediting body recognized by the U.S. Department of Education (USDE). The doctoral degree is not limited to</li> </ul>	<ul style="list-style-type: none"> <li>• The program must identify an individual as the program director who is assigned to the occupational therapy educational program as a full-time core faculty member as defined by ACOTE. The director may be assigned other institutional duties that do not interfere with the management and administration of the program. The institution must document that the program director has sufficient release time to ensure that the needs of the program are being met.</li> <li>• The program director must be an initially certified occupational therapist or occupational therapy assistant who is licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the program is located. The program director must hold a minimum of a master's degree awarded by an institution that is accredited by a regional accrediting body recognized by the U.S. Department of Education</li> </ul>	<ul style="list-style-type: none"> <li>• The program must identify an individual as the program director who is assigned to the occupational therapy educational program as a full-time core faculty member as defined by ACOTE. The director may be assigned other institutional duties that do not interfere with the management and administration of the program. The institution must document that the program director has sufficient release time to ensure that the needs of the program are being met.</li> <li>• The program director must be an initially certified occupational therapist or occupational therapy assistant who is licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the program is located. The program director must hold a minimum of a master's degree awarded by an institution that is accredited by a regional accrediting body recognized by the U.S. Department of Education</li> </ul>

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	<p>a doctorate in occupational therapy.</p> <p>For degrees from institutions in countries other than the United States, ACOTE will determine an alternative and equivalent external review process.</p> <ul style="list-style-type: none"> <li>The program director must have a minimum of 8 years of documented experience in the field of occupational therapy. This experience must include: <ul style="list-style-type: none"> <li>Clinical practice as an occupational therapist.</li> <li>Administrative experience including, but not limited to, program planning and implementation, personnel management, evaluation, and budgeting.</li> <li>Scholarship (e.g., scholarship of application, scholarship of teaching and learning).</li> <li>Understanding of the role of the occupational therapy assistant.</li> <li>At least 3 years of experience in a full-time academic appointment with teaching responsibilities at the postbaccalaureate level.</li> </ul> </li> <li>The program director must be responsible for the management and administration of the program, including planning, evaluation, budgeting, selection of faculty and staff, maintenance of accreditation, and commitment to strategies for professional development.</li> <li>The program director position cannot be shared.</li> </ul>	<p>a doctorate in occupational therapy.</p> <p>For degrees from institutions in countries other than the United States, ACOTE will determine an alternative and equivalent external review process.</p> <ul style="list-style-type: none"> <li>The program director must have a minimum of 8 years of documented experience in the field of occupational therapy. This experience must include: <ul style="list-style-type: none"> <li>Clinical practice as an occupational therapist.</li> <li>Administrative experience including, but not limited to, program planning and implementation, personnel management, evaluation, and budgeting.</li> <li>Scholarship (e.g., scholarship of application, scholarship of teaching and learning).</li> <li>Understanding of the role of the occupational therapy assistant.</li> <li>At least 3 years of experience in a full-time academic appointment with teaching responsibilities at the postsecondary level.</li> </ul> </li> <li>The program director must be responsible for the management and administration of the program, including planning, evaluation, budgeting, selection of faculty and staff, maintenance of accreditation, and commitment to strategies for professional development.</li> <li>The program director position cannot be shared.</li> </ul>	<p>(USDE). The master's degree is not limited to a master's degree in occupational therapy.</p> <p>For degrees from institutions in countries other than the United States, ACOTE will determine an alternative and equivalent external review process.</p> <ul style="list-style-type: none"> <li>The program director must have a minimum of 5 years of documented experience in the field of occupational therapy. This experience must include: <ul style="list-style-type: none"> <li>Clinical practice as an occupational therapist or occupational therapy assistant.</li> <li>Administrative experience including, but not limited to, program planning and implementation, personnel management, evaluation, and budgeting.</li> <li>Scholarship (e.g., scholarship of application, scholarship of teaching and learning).</li> <li>Understanding of and experience with occupational therapy assistants.</li> <li>At least 2 years of experience in a full-time academic appointment with teaching responsibilities at the postsecondary level.</li> </ul> </li> <li>The program director must be responsible for the management and administration of the program, including planning, evaluation, budgeting, selection of faculty and staff, maintenance of accreditation, and commitment to strategies for professional development.</li> <li>The program director position cannot be shared.</li> </ul>	<p>(USDE). The master's degree is not limited to a master's degree in occupational therapy.</p> <p>For degrees from institutions in countries other than the United States, ACOTE will determine an alternative and equivalent external review process.</p> <ul style="list-style-type: none"> <li>The program director must have a minimum of 5 years of documented experience in the field of occupational therapy. This experience must include: <ul style="list-style-type: none"> <li>Clinical practice as an occupational therapist or occupational therapy assistant.</li> <li>Administrative experience including, but not limited to, program planning and implementation, personnel management, evaluation, and budgeting.</li> <li>Scholarship (e.g., scholarship of application, scholarship of teaching and learning).</li> <li>Understanding of and experience with occupational therapy assistants.</li> <li>At least 2 years of experience in a full-time academic appointment with teaching responsibilities at the postsecondary level.</li> </ul> </li> <li>The program director must be responsible for the management and administration of the program, including planning, evaluation, budgeting, selection of faculty and staff, maintenance of accreditation, and commitment to strategies for professional development.</li> <li>The program director position cannot be shared.</li> </ul>

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<p>A DOCTORAL OR MASTER'S DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED REGIONAL ACCREDITATION SINCE THAT TIME.</p> <p>A BACCALAUREATE DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY OR NATIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED REGIONAL OR NATIONAL ACCREDITATION SINCE THAT TIME.</p>				
<b>A.2.2. FTE Faculty Composition</b>				
A.2.2.	(No related Standard)	(No related Standard)	<p>The program must have at least three full-time equivalent (FTE) faculty positions at each accredited location where the program is offered.</p> <p>At a minimum, each program must have a core faculty who is an occupational therapist and a core faculty who is an occupational therapy assistant.</p>	<p>The program must have at least two full-time equivalent (FTE) faculty positions at each accredited location where the program is offered.</p> <p>At a minimum, each program must have a core faculty who is an occupational therapist and a core faculty who is an occupational therapy assistant.</p>
<b>A.2.3. Program Director and Faculty Qualifications</b>				
A.2.3.	<p>The program director and faculty must possess:</p> <ul style="list-style-type: none"> <li>The academic and experiential qualifications and backgrounds (identified in documented descriptions of roles and responsibilities) that are necessary to meet program objectives and the mission of the institution.</li> <li>Documented expertise in their area(s) of teaching responsibility and knowledge of the content delivery method (e.g., distance learning). Evidence of expertise in teaching assignments might include documentation of continuing professional development, relevant experience, faculty development plan reflecting acquisition of new content, incorporation of feedback from course evaluations, and other sources.</li> <li>The expertise necessary to ensure appropriate curriculum design, content delivery, and program evaluation.</li> </ul>	<p>The program director and faculty must possess:</p> <ul style="list-style-type: none"> <li>The academic and experiential qualifications and backgrounds (identified in documented descriptions of roles and responsibilities) that are necessary to meet program objectives and the mission of the institution.</li> <li>Documented expertise in their area(s) of teaching responsibility and knowledge of the content delivery method (e.g., distance learning). Evidence of expertise in teaching assignments might include documentation of continuing professional development, relevant experience, faculty development plan reflecting acquisition of new content, incorporation of feedback from course evaluations, and other sources.</li> <li>The expertise necessary to ensure appropriate curriculum design, content delivery, and program evaluation.</li> </ul>	<p>The program director and faculty must possess:</p> <ul style="list-style-type: none"> <li>The academic and experiential qualifications and backgrounds (identified in documented descriptions of roles and responsibilities) that are necessary to meet program objectives and the mission of the institution.</li> <li>Documented expertise in their area(s) of teaching responsibility and knowledge of the content delivery method (e.g., distance learning). Evidence of expertise in teaching assignments might include documentation of continuing professional development, relevant experience, faculty development plan reflecting acquisition of new content, incorporation of feedback from course evaluations, and other sources.</li> <li>The expertise necessary to ensure appropriate curriculum design, content delivery, and program evaluation.</li> </ul>	<p>The program director and faculty must possess:</p> <ul style="list-style-type: none"> <li>The academic and experiential qualifications and backgrounds (identified in documented descriptions of roles and responsibilities) that are necessary to meet program objectives and the mission of the institution.</li> <li>Documented expertise in their area(s) of teaching responsibility and knowledge of the content delivery method (e.g., distance learning). Evidence of expertise in teaching assignments might include documentation of continuing professional development, relevant experience, faculty development plan reflecting acquisition of new content, incorporation of feedback from course evaluations, and other sources.</li> <li>The expertise necessary to ensure appropriate curriculum design, content delivery, and program evaluation.</li> </ul>



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<b>A.2.4. Academic Fieldwork Coordinator</b>				
A.2.4.	<p>The program must identify an individual for the role of academic fieldwork coordinator who is specifically responsible for the program's compliance with the fieldwork requirements of Standards Section C.1.0 and is assigned to the occupational therapy educational program as a full-time core faculty member as defined by ACOTE. The academic fieldwork coordinator may be assigned other institutional duties that do not interfere with the management and administration of the fieldwork program. The institution must document that the academic fieldwork coordinator has sufficient release time and support to ensure that the needs of the fieldwork program are being met.</p> <p>This individual must be an occupational therapist who is licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the program is located. The academic fieldwork coordinator must have at least 2 years of clinical practice experience as an occupational therapist and hold a doctoral degree awarded by an institution that is accredited by a USDE-recognized regional accrediting body.</p> <p>For degrees from institutions in countries other than the United States, ACOTE will determine an alternative and equivalent external review process.</p>	<p>The program must identify an individual for the role of academic fieldwork coordinator who is specifically responsible for the program's compliance with the fieldwork requirements of Standards Section C.1.0 and is assigned to the occupational therapy educational program as a full-time core faculty member as defined by ACOTE. The academic fieldwork coordinator may be assigned other institutional duties that do not interfere with the management and administration of the fieldwork program. The institution must document that the academic fieldwork coordinator has sufficient release time and support to ensure that the needs of the fieldwork program are being met.</p> <p>This individual must be an occupational therapist who is licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the program is located. The academic fieldwork coordinator must have at least 2 years of clinical practice experience as an occupational therapist and hold a minimum of a master's degree awarded by an institution that is accredited by a USDE-recognized regional accrediting body.</p> <p>For degrees from institutions in countries other than the United States, ACOTE will determine an alternative and equivalent external review process.</p>	<p>The program must identify an individual for the role of academic fieldwork coordinator who is specifically responsible for the program's compliance with the fieldwork requirements of Standards Section C.1.0 and is assigned to the occupational therapy educational program as a full-time core faculty member as defined by ACOTE. The academic fieldwork coordinator may be assigned other institutional duties that do not interfere with the management and administration of the fieldwork program. The institution must document that the academic fieldwork coordinator has sufficient release time and support to ensure that the needs of the fieldwork program are being met.</p> <p>This individual must be an occupational therapist or occupational therapy assistant who is licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the program is located. The academic fieldwork coordinator must have at least 2 years of clinical practice experience as an occupational therapist or occupational therapy assistant and hold a minimum of a baccalaureate degree awarded by an institution that is accredited by a USDE-recognized regional or national accrediting body.</p> <p>For degrees from institutions in countries other than the United States, ACOTE will determine an alternative and equivalent external review process.</p>	<p>The program must identify an individual for the role of academic fieldwork coordinator who is specifically responsible for the program's compliance with the fieldwork requirements of Standards Section C.1.0 and is assigned to the occupational therapy educational program as a full-time core faculty member as defined by ACOTE. The academic fieldwork coordinator may be assigned other institutional duties that do not interfere with the management and administration of the fieldwork program. The institution must document that the academic fieldwork coordinator has sufficient release time and support to ensure that the needs of the fieldwork program are being met.</p> <p>This individual must be an occupational therapist or occupational therapy assistant who is licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the program is located. The academic fieldwork coordinator must have at least 2 years of clinical practice experience as an occupational therapist or occupational therapy assistant and hold a minimum of a baccalaureate degree awarded by an institution that is accredited by a USDE-recognized regional or national accrediting body.</p> <p>For degrees from institutions in countries other than the United States, ACOTE will determine an alternative and equivalent external review process.</p>
	A DOCTORAL DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED REGIONAL	A MASTER'S DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED REGIONAL	A BACCALAUREATE DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY OR NATIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN	A BACCALAUREATE DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY OR NATIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN

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	ACCREDITATION SINCE THAT TIME	ACCREDITATION SINCE THAT TIME	AWARDED REGIONAL OR NATIONAL ACCREDITATION SINCE THAT TIME	AWARDED REGIONAL OR NATIONAL ACCREDITATION SINCE THAT TIME
<b>A.2.5. Doctoral Capstone Coordinator</b>				
A.2.5.	<p>The program must identify an individual for the role of capstone coordinator who is specifically responsible for the program's compliance with the capstone requirements of Standards Section D.1.0 and is assigned to the occupational therapy educational program as a full-time core faculty member as defined by ACOTE. The capstone coordinator may be assigned other institutional duties that do not interfere with the management and administration of the capstone program. The institution must document that the capstone coordinator has sufficient release time and support to ensure that the needs of the capstone program are being met.</p> <p>This individual must be an occupational therapist who is licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the program is located. The capstone coordinator must hold a doctoral degree awarded by an institution that is accredited by a USDE-recognized regional accrediting body.</p> <p>For degrees from institutions in countries other than the United States, ACOTE will determine an alternative and equivalent external review process.</p>	(No related Standard)	(No related Standard)	(No related Standard)
	A DOCTORAL DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED REGIONAL ACCREDITATION SINCE THAT TIME.			

STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A BACCALAUREATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
<b>A.2.6. Licensed OT and OTA Faculty</b>				
A.2.6.	<p>Core faculty who are occupational therapy practitioners and teaching occupational therapy content must be currently licensed or otherwise regulated in the state or jurisdiction as an occupational therapist or occupational therapy assistant.</p> <p>Faculty in residence and teaching at additional locations must be currently licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the additional location is located.</p> <p>For programs outside of the United States or its jurisdictions, core faculty who are occupational therapists or occupational therapy assistants and who are teaching occupational therapy content must be currently licensed or regulated in accordance with their country's regulations.</p>	<p>Core faculty who are occupational therapy practitioners and teaching occupational therapy content must be currently licensed or otherwise regulated in the state or jurisdiction as an occupational therapist or occupational therapy assistant.</p> <p>Faculty in residence and teaching at additional locations must be currently licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the additional location is located.</p> <p>For programs outside of the United States or its jurisdictions, core faculty who are occupational therapists or occupational therapy assistants and who are teaching occupational therapy content must be currently licensed or regulated in accordance with their country's regulations.</p>	<p>Core faculty who are occupational therapy practitioners and teaching occupational therapy content must be currently licensed or otherwise regulated in the state or jurisdiction as an occupational therapist or occupational therapy assistant.</p> <p>Faculty in residence and teaching at additional locations must be currently licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the additional location is located.</p> <p>For programs outside of the United States or its jurisdictions, core faculty who are occupational therapists or occupational therapy assistants and who are teaching occupational therapy content must be currently licensed or regulated in accordance with their country's regulations.</p>	<p>Core faculty who are occupational therapy practitioners and teaching occupational therapy content must be currently licensed or otherwise regulated in the state or jurisdiction as an occupational therapist or occupational therapy assistant.</p> <p>Faculty in residence and teaching at additional locations must be currently licensed or otherwise regulated according to regulations in the state(s) or jurisdiction(s) in which the additional location is located.</p> <p>For programs outside of the United States or its jurisdictions, core faculty who are occupational therapists or occupational therapy assistants and who are teaching occupational therapy content must be currently licensed or regulated in accordance with their country's regulations.</p>
<b>A.2.7. Faculty Degrees</b>				
A.2.7.	<p>All full-time core faculty who are occupational therapy practitioners teaching in the program must hold a doctoral degree awarded by an institution that is accredited by a USDE-recognized regional accrediting body. The doctoral degree is not limited to a doctorate in occupational therapy.</p> <p>At least 50% of full-time core faculty must have a post-professional doctorate.</p> <p>For degrees from institutions in countries other than the United States, ACOTE will determine an alternative and equivalent external review process.</p>	<p>The majority of full-time core faculty who are occupational therapy practitioners teaching in the program must hold a doctoral degree. All full-time faculty must hold a minimum of a master's degree. All degrees must be awarded by an institution that is accredited by a USDE-recognized regional accrediting body. The degrees are not limited to occupational therapy.</p> <p>At least 50% of full-time core faculty must hold a doctoral degree. The program director is counted as a faculty member.</p> <p>At least 25% of full-time core faculty must have a post-professional doctorate.</p> <p>For degrees from institutions in countries other than the United States, ACOTE will determine an alternative and equivalent external review process.</p>	<p>The majority of full-time core faculty who are occupational therapy practitioners teaching in the program must hold a minimum of a master's degree awarded by an institution that is accredited by a USDE-recognized regional accrediting body. All full-time faculty must hold a minimum of a baccalaureate degree that is awarded by an institution that is accredited by a USDE-recognized regional or national accrediting body. The degrees are not limited to occupational therapy.</p> <p>At least 50% of full-time core faculty must hold a minimum of a master's degree. The program director is counted as a faculty member.</p> <p>For degrees from institutions in countries other than the United States, ACOTE will determine an alternative and equivalent external review process.</p>	<p>All full-time core faculty who are occupational therapy practitioners teaching in the program must hold a minimum of a baccalaureate degree awarded by an institution that is accredited by a USDE-recognized regional or national accrediting body. The degrees are not limited to occupational therapy.</p> <p>For degrees from institutions in countries other than the United States, ACOTE will determine an alternative and equivalent external review process.</p>

STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A BACCALAUREATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
	A DOCTORAL DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED REGIONAL ACCREDITATION SINCE THAT TIME.	A DOCTORAL OR MASTER'S DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED REGIONAL ACCREDITATION SINCE THAT TIME.	A MASTER'S OR BACCALAUREATE DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED REGIONAL ACCREDITATION SINCE THAT TIME. A BACCALAUREATE DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY OR NATIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED REGIONAL ACCREDITATION SINCE THAT TIME.	A BACCALAUREATE DEGREE THAT WAS AWARDED PRIOR TO JULY 1, 2015, FROM AN INSTITUTION THAT WAS NOT REGIONALLY OR NATIONALLY ACCREDITED IS CONSIDERED ACCEPTABLE TO MEET THIS STANDARD ONLY IF THE INSTITUTION IS SEEKING OR HAS BEEN AWARDED REGIONAL ACCREDITATION SINCE THAT TIME.
<b>A.2.8. Site Coordinator</b>				
A.2.8.	For programs with additional location(s), the program must identify a full-time core faculty member who is an occupational therapist as site coordinator at each location who is responsible for ensuring uniform implementation of the program and ongoing communication with the program director.	For programs with additional location(s), the program must identify a full-time core faculty member who is an occupational therapist as site coordinator at each location who is responsible for ensuring uniform implementation of the program and ongoing communication with the program director.	For programs with additional location(s), the program must identify a full-time core faculty member who is an occupational therapy practitioner as site coordinator at each location who is responsible for ensuring uniform implementation of the program and ongoing communication with the program director.	For programs with additional location(s), the program must identify a full-time core faculty member who is an occupational therapy practitioner as site coordinator at each location who is responsible for ensuring uniform implementation of the program and ongoing communication with the program director.
<b>A.2.9. Sufficient Faculty</b>				
A.2.9.	The occupational therapy faculty at each location where the program is offered must be sufficient in number to ensure appropriate curriculum design, content delivery, and program evaluation. Multiple adjuncts, part-time faculty, or full-time faculty may be configured to meet this goal.  Faculty responsible for content related to research methodology and mentoring students on scholarly projects must demonstrate ongoing scholarly achievement and research expertise.	The occupational therapy faculty at each location where the program is offered must be sufficient in number to ensure appropriate curriculum design, content delivery, and program evaluation. Multiple adjuncts, part-time faculty, or full-time faculty may be configured to meet this goal.  Faculty responsible for content related to research methodology and mentoring students on scholarly projects must demonstrate ongoing scholarly achievement and research expertise.	The occupational therapy assistant faculty at each location where the program is offered must be sufficient in number to ensure appropriate curriculum design, content delivery, and program evaluation. Multiple adjuncts, part-time faculty, or full-time faculty may be configured to meet this goal.	The occupational therapy assistant faculty at each location where the program is offered must be sufficient in number to ensure appropriate curriculum design, content delivery, and program evaluation. Multiple adjuncts, part-time faculty, or full-time faculty may be configured to meet this goal.
<b>A.2.10. Clerical and Support Staff</b>				
A.2.10.	Clerical and support staff must be provided to the program, consistent with institutional practice, to meet	Clerical and support staff must be provided to the program, consistent with institutional practice, to meet	Clerical and support staff must be provided to the program, consistent with institutional practice, to meet	Clerical and support staff must be provided to the program, consistent with institutional practice, to meet



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	programmatic, administrative, fieldwork and doctoral capstone requirements, including support for any portion of the program offered by distance education.	programmatic, administrative, and fieldwork requirements, including support for any portion of the program offered by distance education.	programmatic, administrative, fieldwork, and baccalaureate project requirements, including support for any portion of the program offered by distance education.	programmatic administrative, and fieldwork requirements, including support for any portion of the program offered by distance education.
<b>A.2.11. Budget</b>				
A.2.11.	The program must be allocated a budget of regular institutional funds, not including grants, gifts, and other restricted sources, sufficient to implement and maintain the objectives of the program and to fulfill the program's obligation to matriculated and entering students.	The program must be allocated a budget of regular institutional funds, not including grants, gifts, and other restricted sources, sufficient to implement and maintain the objectives of the program and to fulfill the program's obligation to matriculated and entering students.	The program must be allocated a budget of regular institutional funds, not including grants, gifts, and other restricted sources, sufficient to implement and maintain the objectives of the program and to fulfill the program's obligation to matriculated and entering students.	The program must be allocated a budget of regular institutional funds, not including grants, gifts, and other restricted sources, sufficient to implement and maintain the objectives of the program and to fulfill the program's obligation to matriculated and entering students.
<b>A.2.12. Adequate Space</b>				
A.2.12.	<ul style="list-style-type: none"> <li>Adequate classroom and laboratory space, including storing and securing of equipment and supplies, must be provided by the institution and assigned to the occupational therapy program on a priority basis. If laboratory space is provided by another institution or agency, there must be a written and signed agreement to ensure assignment of space for program use.</li> <li>The program director and faculty must have office space consistent with institutional practice.</li> <li>Adequate space must be provided for the private advising of students.</li> </ul>	<ul style="list-style-type: none"> <li>Adequate classroom and laboratory space, including storing and securing of equipment and supplies, must be provided by the institution and assigned to the occupational therapy program on a priority basis. If laboratory space is provided by another institution or agency, there must be a written and signed agreement to ensure assignment of space for program use.</li> <li>The program director and faculty must have office space consistent with institutional practice.</li> <li>Adequate space must be provided for the private advising of students.</li> </ul>	<ul style="list-style-type: none"> <li>Adequate classroom and laboratory space, including storing and securing of equipment and supplies, must be provided by the institution and assigned to the occupational therapy assistant program on a priority basis. If laboratory space is provided by another institution or agency, there must be a written and signed agreement to ensure assignment of space for program use.</li> <li>The program director and faculty must have office space consistent with institutional practice.</li> <li>Adequate space must be provided for the private advising of students.</li> </ul>	<ul style="list-style-type: none"> <li>Adequate classroom and laboratory space, including storing and securing of equipment and supplies, must be provided by the institution and assigned to the occupational therapy assistant program on a priority basis. If laboratory space is provided by another institution or agency, there must be a written and signed agreement to ensure assignment of space for program use.</li> <li>The program director and faculty must have office space consistent with institutional practice.</li> <li>Adequate space must be provided for the private advising of students.</li> </ul>
<b>A.2.13. Equipment, Supplies, and Evaluative and Treatment Methodologies</b>				
A.2.13.	<ul style="list-style-type: none"> <li>Appropriate and sufficient equipment and supplies must be provided by the institution for student use during the didactic, fieldwork, and doctoral capstone components of the curriculum.</li> <li>Students must be given access and opportunity to use the evaluative and treatment methodologies that reflect current evidence-based practice in the geographic area served by the</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate and sufficient equipment and supplies must be provided by the institution for student use during the didactic and fieldwork components of the curriculum.</li> <li>Students must be given access and opportunity to use the evaluative and treatment methodologies that reflect current evidence-based practice in the geographic area served by the program.</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate and sufficient equipment and supplies must be provided by the institution for student use during didactic, fieldwork, and baccalaureate project components of the curriculum.</li> <li>Students must be given access and opportunity to use the evaluative and treatment methodologies that reflect current evidence-based practice in the geographic area served by the</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate and sufficient equipment and supplies must be provided by the institution for student use during the didactic and fieldwork components of the curriculum.</li> <li>Students must be given access and opportunity to use the evaluative and treatment methodologies that reflect current evidence-based practice in the geographic area served by the program.</li> </ul>

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	program.		program.	
<b>A.2.14. Library, Reference Materials, Instructional Aids, and Technology</b>				
A.2.14.	<ul style="list-style-type: none"> <li>Students must have ready access to a supply of current and relevant books, journals, periodicals, computers, software, and other reference materials needed to meet the requirements of the curriculum. This may include, but is not limited to, libraries, online services, interlibrary loan, support, and resource centers.</li> <li>Instructional aids and technology must be available in sufficient quantity and quality to be consistent with the program objectives and teaching methods. Student support services must also be available.</li> </ul>	<ul style="list-style-type: none"> <li>Students must have ready access to a supply of current and relevant books, journals, periodicals, computers, software, and other reference materials needed to meet the requirements of the curriculum. This may include, but is not limited to, libraries, online services, interlibrary loan, support, and resource centers.</li> <li>Instructional aids and technology must be available in sufficient quantity and quality to be consistent with the program objectives and teaching methods. Student support services must also be available.</li> </ul>	<ul style="list-style-type: none"> <li>Students must have ready access to a supply of current and relevant books, journals, periodicals, computers, software, and other reference materials needed to meet the requirements of the curriculum. This may include, but is not limited to, libraries, online services, interlibrary loan, support, and resource centers.</li> <li>Instructional aids and technology must be available in sufficient quantity and quality to be consistent with the program objectives and teaching methods. Student support services must also be available.</li> </ul>	<ul style="list-style-type: none"> <li>Students must have ready access to a supply of current and relevant books, journals, periodicals, computers, software, and other reference materials needed to meet the requirements of the curriculum. This may include, but is not limited to, libraries, online services, interlibrary loan, support, and resource centers.</li> <li>Instructional aids and technology must be available in sufficient quantity and quality to be consistent with the program objectives and teaching methods. Student support services must also be available.</li> </ul>
<b>A.2.15. Distance Education</b>				
A.2.15.	<p>If any portion of the program is offered through distance education, it must include:</p> <ul style="list-style-type: none"> <li>A process through which the program establishes that the student who registers in a distance education course or program is the same student who participates in and completes the program and receives academic credit.</li> <li>Technology and resources that are adequate to support a distance-learning environment.</li> <li>A process to ensure that faculty are adequately trained and skilled to use distance education methodologies.</li> </ul> <p>The program must provide documentation of the processes involved and evidence of implementation.</p>	<p>If any portion of the program is offered through distance education, it must include:</p> <ul style="list-style-type: none"> <li>A process through which the program establishes that the student who registers in a distance education course or program is the same student who participates in and completes the program and receives academic credit.</li> <li>Technology and resources that are adequate to support a distance-learning environment.</li> <li>A process to ensure that faculty are adequately trained and skilled to use distance education methodologies.</li> </ul> <p>The program must provide documentation of the processes involved and evidence of implementation.</p>	<p>If any portion of the program is offered through distance education, it must include:</p> <ul style="list-style-type: none"> <li>A process through which the program establishes that the student who registers in a distance education course or program is the same student who participates in and completes the program and receives academic credit.</li> <li>Technology and resources that are adequate to support a distance-learning environment.</li> <li>A process to ensure that faculty are adequately trained and skilled to use distance education methodologies.</li> </ul> <p>The program must provide documentation of the processes involved and evidence of implementation.</p>	<p>If any portion of the program is offered through distance education, it must include:</p> <ul style="list-style-type: none"> <li>A process through which the program establishes that the student who registers in a distance education course or program is the same student who participates in and completes the program and receives academic credit.</li> <li>Technology and resources that are adequate to support a distance-learning environment.</li> <li>A process to ensure that faculty are adequately trained and skilled to use distance education methodologies.</li> </ul> <p>The program must provide documentation of the processes involved and evidence of implementation.</p>

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<b>A.3.0. STUDENTS</b>				
<b>A.3.1. Admission Criteria</b>				
A.3.1.	Admission of students to the occupational therapy program must be made in accordance with the practices of the institution. There must be stated admission criteria that are clearly defined and published and reflective of the demands of the program.	Admission of students to the occupational therapy program must be made in accordance with the practices of the institution. There must be stated admission criteria that are clearly defined and published and reflective of the demands of the program.	Admission of students to the occupational therapy assistant program must be made in accordance with the practices of the institution. There must be stated admission criteria that are clearly defined and published and reflective of the demands of the program.	Admission of students to the occupational therapy assistant program must be made in accordance with the practices of the institution. There must be stated admission criteria that are clearly defined and published and reflective of the demands of the program.
<b>A.3.2. Admission Policies</b>				
A.3.2.	Policies pertaining to standards for admission, advanced placement, transfer of credit, credit for experiential learning (if applicable), and prerequisite educational or work experience requirements must be readily accessible to prospective students and the public.	Policies pertaining to standards for admission, advanced placement, transfer of credit, credit for experiential learning (if applicable), and prerequisite educational or work experience requirements must be readily accessible to prospective students and the public.	Policies pertaining to standards for admission, advanced placement, transfer of credit, credit for experiential learning (if applicable), and prerequisite educational or work experience requirements must be readily accessible to prospective students and the public.	Policies pertaining to standards for admission, advanced placement, transfer of credit, credit for experiential learning (if applicable), and prerequisite educational or work experience requirements must be readily accessible to prospective students and the public.
<b>A.3.3. Credit for Previous Courses/Work Experience</b>				
A.3.3.	Programs must document implementation of a mechanism to ensure that students receiving credit for previous courses and/or work experience have met the content requirements of the appropriate doctoral Standards.	Programs must document implementation of a mechanism to ensure that students receiving credit for previous courses and/or work experience have met the content requirements of the appropriate master's Standards.	Programs must document implementation of a mechanism to ensure that students receiving credit for previous courses and/or work experience have met the content requirements of the appropriate baccalaureate Standards.	Programs must document implementation of a mechanism to ensure that students receiving credit for previous courses and/or work experience have met the content requirements of the appropriate associate's Standards.
<b>A.3.4. Criteria for Successful Completion</b>				
A.3.4.	Criteria for successful completion of each segment of the educational program and for graduation must be given in advance to each student.	Criteria for successful completion of each segment of the educational program and for graduation must be given in advance to each student.	Criteria for successful completion of each segment of the educational program and for graduation must be given in advance to each student.	Criteria for successful completion of each segment of the educational program and for graduation must be given in advance to each student.
<b>A.3.5. Evaluation on a Regular Basis</b>				
A.3.5.	Evaluation must occur on a regular basis and feedback must be provided in a timely fashion in the following areas: <ul style="list-style-type: none"> <li>• Student progress</li> <li>• Professional behaviors</li> <li>• Academic standing</li> </ul>	Evaluation must occur on a regular basis and feedback must be provided in a timely fashion in the following areas: <ul style="list-style-type: none"> <li>• Student progress</li> <li>• Professional behaviors</li> <li>• Academic standing</li> </ul>	Evaluation must occur on a regular basis and feedback must be provided in a timely fashion in the following areas: <ul style="list-style-type: none"> <li>• Student progress</li> <li>• Professional behaviors</li> <li>• Academic standing</li> </ul>	Evaluation must occur on a regular basis and feedback must be provided in a timely fashion in the following areas: <ul style="list-style-type: none"> <li>• Student progress</li> <li>• Professional behaviors</li> <li>• Academic standing</li> </ul>
<b>A.3.6. Student Support Services</b>				
A.3.6.	Students must be informed of and have access to the student support services that are provided to other students in the	Students must be informed of and have access to the student support services that are provided to other students in the	Students must be informed of and have access to the student support services that are provided to other students in the	Students must be informed of and have access to the student support services that are provided to other students in the



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	institution. Distance students must have access to the same resources as campus students.	institution. Distance students must have access to the same resources as campus students.	institution. Distance students must have access to the same resources as campus students.	institution. Distance students must have access to the same resources as campus students.
<b>A.3.7. Advising by Faculty</b>				
A.3.7.	Advising related to professional coursework, professional behaviors, fieldwork education, and the doctoral capstone must be the responsibility of the occupational therapy faculty.	Advising related to professional coursework, professional behaviors, and fieldwork education must be the responsibility of the occupational therapy faculty.	Advising related to coursework in the occupational therapy assistant program, professional behaviors, fieldwork education, and the baccalaureate project must be the responsibility of the occupational therapy assistant faculty.	Advising related to coursework in the occupational therapy assistant program, professional behaviors, and fieldwork education must be the responsibility of the occupational therapy assistant faculty.
<b>A.4.0. PUBLIC INFORMATION &amp; POLICIES</b>				
<b>A.4.1. Accurate Program Publications</b>				
A.4.1.	All program publications and advertising—including, but not limited to, academic calendars, announcements, catalogs, handbooks, and websites—must accurately reflect the program offered.	All program publications and advertising—including, but not limited to, academic calendars, announcements, catalogs, handbooks, and websites—must accurately reflect the program offered.	All program publications and advertising—including, but not limited to, academic calendars, announcements, catalogs, handbooks, and websites—must accurately reflect the program offered.	All program publications and advertising—including, but not limited to, academic calendars, announcements, catalogs, handbooks, and websites—must accurately reflect the program offered.
<b>A.4.2. Publication of Program Outcomes</b>				
A.4.2.	<p>Accurate and current information regarding student and program outcomes must be readily available to the public on the program's web page. At a minimum, the following data must be reported separately as well as totaled for each of the previous 3 years:</p> <ul style="list-style-type: none"> <li>• Program graduates</li> <li>• Graduation rates</li> </ul> <p>The program must provide the direct link to the National Board for Certification in Occupational Therapy (NBCOT®) program data results on the program's home page.</p>	<p>Accurate and current information regarding student and program outcomes must be readily available to the public on the program's web page. At a minimum, the following data must be reported separately as well as totaled for each of the previous 3 years:</p> <ul style="list-style-type: none"> <li>• Program graduates</li> <li>• Graduation rates</li> </ul> <p>The program must provide the direct link to the National Board for Certification in Occupational Therapy (NBCOT®) program data results on the program's home page.</p>	<p>Accurate and current information regarding student and program outcomes must be readily available to the public on the program's web page. At a minimum, the following data must be reported separately as well as totaled for each of the previous 3 years:</p> <ul style="list-style-type: none"> <li>• Program graduates</li> <li>• Graduation rates</li> </ul> <p>The program must provide the direct link to the National Board for Certification in Occupational Therapy (NBCOT®) program data results on the program's home page.</p>	<p>Accurate and current information regarding student and program outcomes must be readily available to the public on the program's web page. At a minimum, the following data must be reported separately as well as totaled for each of the previous 3 years:</p> <ul style="list-style-type: none"> <li>• Program graduates</li> <li>• Graduation rates</li> </ul> <p>The program must provide the direct link to the National Board for Certification in Occupational Therapy (NBCOT®) program data results on the program's home page.</p>
<p>PROGRAMS MAY USE EITHER CALENDAR YEAR OR ACADEMIC YEAR WHEN PUBLISHING THE TOTAL NUMBER OF PROGRAM GRADUATES AND GRADUATION RATES FROM THE PREVIOUS 3 YEARS AS LONG AS THE TIME FRAME IS CLEARLY DELINEATED. THE NUMBER OF PROGRAM GRADUATES MUST BE TOTALED FOR THE 3-YEAR REPORTING PERIOD. IF THE PROGRAM HAS ONLY ONE OR TWO YEARS OF GRADUATE DATA, THIS MUST BE MADE AVAILABLE AND TOTALED. THE TOTAL MAY BE IN THE FORM OF A NARRATIVE OR WITHIN A GRID. THE TOTAL NUMBER OF PROGRAM GRADUATES AND GRADUATION RATES MUST BE POSTED ON THE PROGRAM'S WEB PAGE. THE PROGRAM MUST PROVIDE AN ACTIVE DIRECT LINK TO THE NBCOT PROGRAM DATA RESULTS ON THE PROGRAM'S HOME PAGE. <a href="https://www.nbcot.org/en/educators/home#schoolperformance">HTTPS://WWW.NBCOT.ORG/EN/EDUCATORS/HOME#SCHOOLPERFORMANCE</a> (PREFERRED LINK) OR <a href="https://secure.nbcot.org/data/schoolstats.aspx">HTTPS://SECURE.NBCOT.ORG/DATA/SCHOOLSTATS.ASPX</a></p>				
<b>A.4.3. Publication of ACOTE Information</b>				
A.4.3.	The program's accreditation status and the name, address, and telephone number	The program's accreditation status and the name, address, and telephone number	The program's accreditation status and the name, address, and telephone number	The program's accreditation status and the name, address, and telephone number

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	of ACOTE must be published in all of the following materials used by the institution: catalog, website, and program-related brochures or flyers available to prospective students. An active link to <a href="http://www.acoteonline.org">www.acoteonline.org</a> must be provided on the program's home page.	of ACOTE must be published in all of the following materials used by the institution: catalog, website, and program-related brochures or flyers available to prospective students. An active link to <a href="http://www.acoteonline.org">www.acoteonline.org</a> must be provided on the program's home page.	of ACOTE must be published in all of the following materials used by the institution: catalog, website, and program-related brochures or flyers available to prospective students. An active link to <a href="http://www.acoteonline.org">www.acoteonline.org</a> must be provided on the program's home page.	of ACOTE must be published in all of the following materials used by the institution: catalog, website, and program-related brochures or flyers available to prospective students. An active link to <a href="http://www.acoteonline.org">www.acoteonline.org</a> must be provided on the program's home page.
SAMPLE WORDING: "THE OCCUPATIONAL THERAPY/OCCUPATIONAL THERAPY ASSISTANT PROGRAM IS ACCREDITED BY THE ACCREDITATION COUNCIL FOR OCCUPATIONAL THERAPY EDUCATION (ACOTE) OF THE AMERICAN OCCUPATIONAL THERAPY ASSOCIATION (AOTA), LOCATED AT 4720 MONTGOMERY LANE, SUITE 200, BETHESDA, MD 20814-3449. ACOTE'S TELEPHONE NUMBER, C/O AOTA, IS (301) 652-AOTA, AND ITS WEB ADDRESS IS <a href="http://WWW.ACOTEONLINE.ORG">WWW.ACOTEONLINE.ORG</a> ."				
<b>A.4.4. Published Policies and Procedures</b>				
A.4.4.	<p>The program must have documented policies and procedures, which are made available to students and ensure the consistent application of each of the following:</p> <ul style="list-style-type: none"> <li>• Policy and procedures for processing student and faculty grievances must be defined and published.</li> <li>• Student withdrawal and refunds of tuition and fees must be published and made known to all applicants.</li> <li>• Student probation, suspension, and dismissal must be published and made known.</li> <li>• Appropriate use of equipment and supplies and for all educational activities that have implications for the health and safety of clients, students, and faculty (including infection control and evacuation procedures) must be documented and made known.</li> <li>• Graduation requirements, tuition, and fees must be accurately stated, published, and made known to all applicants. When published fees are subject to change, a statement to that effect must be included. This includes fees associated with distance education.</li> </ul>	<p>The program must have documented policies and procedures, which are made available to students and ensure the consistent application of each of the following:</p> <ul style="list-style-type: none"> <li>• Policy and procedures for processing student and faculty grievances must be defined and published.</li> <li>• Student withdrawal and refunds of tuition and fees must be published and made known to all applicants.</li> <li>• Student probation, suspension, and dismissal must be published and made known.</li> <li>• Appropriate use of equipment and supplies and for all educational activities that have implications for the health and safety of clients, students, and faculty (including infection control and evacuation procedures) must be documented and made known.</li> <li>• Graduation requirements, tuition, and fees must be accurately stated, published, and made known to all applicants. When published fees are subject to change, a statement to that effect must be included. This includes fees associated with distance education.</li> </ul>	<p>The program must have documented policies and procedures, which are made available to students and ensure the consistent application of each of the following:</p> <ul style="list-style-type: none"> <li>• Policy and procedures for processing student and faculty grievances must be defined and published.</li> <li>• Student withdrawal and refunds of tuition and fees must be published and made known to all applicants.</li> <li>• Student probation, suspension, and dismissal must be published and made known.</li> <li>• Appropriate use of equipment and supplies and for all educational activities that have implications for the health and safety of clients, students, and faculty (including infection control and evacuation procedures) must be documented and made known.</li> <li>• Graduation requirements, tuition, and fees must be accurately stated, published, and made known to all applicants. When published fees are subject to change, a statement to that effect must be included. This includes fees associated with distance education.</li> </ul>	<p>The program must have documented policies and procedures, which are made available to students and ensure the consistent application of each of the following:</p> <ul style="list-style-type: none"> <li>• Policy and procedures for processing student and faculty grievances must be defined and published.</li> <li>• Student withdrawal and refunds of tuition and fees must be published and made known to all applicants.</li> <li>• Student probation, suspension, and dismissal must be published and made known.</li> <li>• Appropriate use of equipment and supplies and for all educational activities that have implications for the health and safety of clients, students, and faculty (including infection control and evacuation procedures) must be documented and made known.</li> <li>• Graduation requirements, tuition, and fees must be accurately stated, published, and made known to all applicants. When published fees are subject to change, a statement to that effect must be included. This includes fees associated with distance education.</li> </ul>

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<b>A.4.5. Ability to Benefit</b>				
A.4.5.	A program admitting students on the basis of ability to benefit (defined by the USDE as admitting students who do not have either a high school diploma or its equivalent) must publicize its objectives, assessment measures, and means of evaluating the student's ability to benefit.	A program admitting students on the basis of ability to benefit (defined by the USDE as admitting students who do not have either a high school diploma or its equivalent) must publicize its objectives, assessment measures, and means of evaluating the student's ability to benefit.	A program admitting students on the basis of ability to benefit (defined by the USDE as admitting students who do not have either a high school diploma or its equivalent) must publicize its objectives, assessment measures, and means of evaluating the student's ability to benefit.	A program admitting students on the basis of ability to benefit (defined by the USDE as admitting students who do not have either a high school diploma or its equivalent) must publicize its objectives, assessment measures, and means of evaluating the student's ability to benefit.
<b>A.4.6. Progression, Retention, Graduation, Certification, and Credentialing Requirements</b>				
A.4.6.	Documentation of all progression, retention, graduation, certification, and credentialing requirements must be published and made known to applicants. A statement on the program's website about the potential impact of a felony conviction on a graduate's eligibility for certification and credentialing must be provided.	Documentation of all progression, retention, graduation, certification, and credentialing requirements must be published and made known to applicants. A statement on the program's website about the potential impact of a felony conviction on a graduate's eligibility for certification and credentialing must be provided.	Documentation of all progression, retention, graduation, certification, and credentialing requirements must be published and made known to applicants. A statement on the program's website about the potential impact of a felony conviction on a graduate's eligibility for certification and credentialing must be provided.	Documentation of all progression, retention, graduation, certification, and credentialing requirements must be published and made known to applicants. A statement on the program's website about the potential impact of a felony conviction on a graduate's eligibility for certification and credentialing must be provided.
	SAMPLE WORDING: "GRADUATES OF THE PROGRAM WILL BE ELIGIBLE TO SIT FOR THE NATIONAL CERTIFICATION EXAMINATION FOR THE OCCUPATIONAL THERAPIST, ADMINISTERED BY THE NATIONAL BOARD FOR CERTIFICATION IN OCCUPATIONAL THERAPY (NBCOT®). AFTER SUCCESSFUL COMPLETION OF THIS EXAM, THE GRADUATE WILL BE AN OCCUPATIONAL THERAPIST, REGISTERED (OTR). IN ADDITION, ALL STATES REQUIRE LICENSURE TO PRACTICE; HOWEVER, STATE LICENSES ARE USUALLY BASED ON THE RESULTS OF THE NBCOT CERTIFICATION EXAMINATION. A FELONY CONVICTION MAY AFFECT A GRADUATE'S ABILITY TO SIT FOR THE NBCOT CERTIFICATION EXAMINATION OR ATTAIN STATE LICENSURE."		SAMPLE WORDING: "GRADUATES OF THE PROGRAM WILL BE ELIGIBLE TO SIT FOR THE NATIONAL CERTIFICATION EXAMINATION FOR THE OCCUPATIONAL THERAPY ASSISTANT, ADMINISTERED BY THE NATIONAL BOARD FOR CERTIFICATION IN OCCUPATIONAL THERAPY (NBCOT®). AFTER SUCCESSFUL COMPLETION OF THIS EXAM, THE GRADUATE WILL BE A CERTIFIED OCCUPATIONAL THERAPY ASSISTANT (COTA). IN ADDITION, ALL STATES REQUIRE LICENSURE TO PRACTICE; HOWEVER, STATE LICENSES ARE USUALLY BASED ON THE RESULTS OF THE NBCOT CERTIFICATION EXAMINATION. A FELONY CONVICTION MAY AFFECT A GRADUATE'S ABILITY TO SIT FOR THE NBCOT CERTIFICATION EXAMINATION OR ATTAIN STATE LICENSURE."	
<b>A.4.7. Completion in a Timely Manner</b>				
A.4.7.	The program must have a documented and published policy to ensure that students complete all graduation, fieldwork, and the doctoral capstone requirements in a timely manner. This policy must include a statement that all Level II fieldwork and the doctoral capstone must be completed within a time frame established by the program.	The program must have a documented and published policy to ensure that students complete all graduation and fieldwork requirements in a timely manner. This policy must include a statement that all Level II fieldwork must be completed within a time frame established by the program.	The program must have a documented and published policy to ensure that students complete all graduation, fieldwork, and the baccalaureate project requirements in a timely manner. This policy must include a statement that all Level II fieldwork and the baccalaureate project must be completed within a time frame established by the program.	The program must have a documented and published policy to ensure that students complete all graduation and fieldwork requirements in a timely manner. This policy must include a statement that all Level II fieldwork must be completed within a time frame established by the program.
	SAMPLE WORDING: "STUDENTS MUST COMPLETE ALL LEVEL II FIELDWORK AND THE DOCTORAL CAPSTONE WITHIN [XX] MONTHS FOLLOWING COMPLETION OF THE DIDACTIC PORTION OF THE PROGRAM."	SAMPLE WORDING: "STUDENTS MUST COMPLETE ALL LEVEL II FIELDWORK WITHIN [XX] MONTHS FOLLOWING COMPLETION OF THE DIDACTIC PORTION OF THE PROGRAM."	SAMPLE WORDING: "STUDENTS MUST COMPLETE ALL LEVEL II FIELDWORK AND THE BACCALAUREATE PROJECT WITHIN [XX] MONTHS FOLLOWING COMPLETION OF THE DIDACTIC PORTION OF THE PROGRAM."	SAMPLE WORDING: "STUDENTS MUST COMPLETE ALL LEVEL II FIELDWORK WITHIN [XX] MONTHS FOLLOWING COMPLETION OF THE DIDACTIC PORTION OF THE PROGRAM."

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<b>A.4.B. Student Records</b>				
A.4.B.	Records regarding student admission, enrollment, fieldwork, doctoral capstone, and achievement must be maintained and kept in a secure setting consistent with Family Educational Rights and Privacy Act regulations. Grades and credits for courses must be recorded on students' transcripts and permanently maintained by the sponsoring institution.	Records regarding student admission, enrollment, fieldwork, and achievement must be maintained and kept in a secure setting consistent with Family Educational Rights and Privacy Act regulations. Grades and credits for courses must be recorded on students' transcripts and permanently maintained by the sponsoring institution.	Records regarding student admission, enrollment, fieldwork, baccalaureate project, and achievement must be maintained and kept in a secure setting consistent with Family Educational Rights and Privacy Act regulations. Grades and credits for courses must be recorded on students' transcripts and permanently maintained by the sponsoring institution.	Records regarding student admission, enrollment, fieldwork, and achievement must be maintained and kept in a secure setting consistent with Family Educational Rights and Privacy Act regulations. Grades and credits for courses must be recorded on students' transcripts and permanently maintained by the sponsoring institution.
<b>A.5.0. CURRICULUM FRAMEWORK</b>				
The curriculum framework is a description of the program that includes the program's mission, philosophy, and curriculum design.				
<b>A.5.1. Curriculum—Preparation to Practice as a Generalist</b>				
A.5.1.	The curriculum must include preparation to practice as a generalist with a broad exposure to practice settings (e.g., school, hospital, community, long-term care) and practice areas, including new and emerging areas (as defined by the program). The curriculum must prepare students to work with a variety of populations including, but not limited to, infants, children, adolescents, adults, and older adults in areas of physical and mental health.	The curriculum must include preparation for practice as a generalist with a broad exposure to practice settings (e.g., school, hospital, community, long-term care) and practice areas, including new and emerging areas (as defined by the program). The curriculum must prepare students to work with a variety of populations including, but not limited to, infants, children, adolescents, adults, and older adults in areas of physical and mental health.	The curriculum must include preparation for practice as a generalist with a broad exposure to practice settings (e.g., school, hospital, community, long-term care) and practice areas, including new and emerging areas (as defined by the program). The curriculum must prepare students to work with a variety of populations including, but not limited to, infants, children, adolescents, adults, and older adults in areas of physical and mental health.	The curriculum must include preparation for practice as a generalist with a broad exposure to practice settings (e.g., school, hospital, community, long-term care) and practice areas, including new and emerging areas (as defined by the program). The curriculum must prepare students to work with a variety of populations including, but not limited to, infants, children, adolescents, adults, and older adults in areas of physical and mental health.
<b>A.5.2. Curriculum—Preparation and Application of In-depth Knowledge</b>				
A.5.2.	The curriculum design must include course objectives and learning activities demonstrating preparation and application of in-depth knowledge in practice skills, research skills, administration, leadership, program and policy development, advocacy, education, or theory through a combination of a capstone experience and a capstone project.	(No related Standard)	The curriculum design must include course objectives and learning activities demonstrating preparation and application of in-depth knowledge in practice skills, administration, leadership, advocacy, or education through the baccalaureate project.	(No related Standard)
<b>A.5.3. Program Length</b>				
A.5.3.	The occupational therapy doctoral degree must be awarded after a period of study such that the total time to the degree, including both preprofessional and	The program must document a system and rationale for ensuring that the length of study of the program is appropriate to the expected learning and competence of the	The program must document a system and rationale for ensuring that the length of study of the program is appropriate to the expected learning and competence of the	The program must document a system and rationale for ensuring that the length of study of the program is appropriate to the expected learning and competence of the



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	professional preparation, equals a minimum of 6 FTE academic years. The program must document a system and rationale for ensuring that the length of study of the program is appropriate to the expected learning and competence of the graduate.	graduate.	graduate.	graduate.
<b>A.5.4. Program Mission and Philosophy</b>				
A5.4.	<ul style="list-style-type: none"> <li>The statement of the mission of the occupational therapy program must:               <ul style="list-style-type: none"> <li>Be consistent with and supportive of the mission of the sponsoring institution.</li> <li>Explain the unique nature of the program and how it helps fulfill or advance the mission of the sponsoring institution, including religious missions.</li> </ul> </li> <li>The statement of philosophy of the occupational therapy program must:               <ul style="list-style-type: none"> <li>Reflect the current published philosophy of the profession.</li> <li>Include a statement of the program's fundamental beliefs about human beings and how they learn.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>The statement of the mission of the occupational therapy program must:               <ul style="list-style-type: none"> <li>Be consistent with and supportive of the mission of the sponsoring institution.</li> <li>Explain the unique nature of the program and how it helps fulfill or advance the mission of the sponsoring institution, including religious missions.</li> </ul> </li> <li>The statement of philosophy of the occupational therapy program must:               <ul style="list-style-type: none"> <li>Reflect the current published philosophy of the profession.</li> <li>Include a statement of the program's fundamental beliefs about human beings and how they learn.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>The statement of the mission of the occupational therapy assistant program must:               <ul style="list-style-type: none"> <li>Be consistent with and supportive of the mission of the sponsoring institution.</li> <li>Explain the unique nature of the program and how it helps fulfill or advance the mission of the sponsoring institution, including religious missions.</li> </ul> </li> <li>The statement of philosophy of the occupational therapy assistant program must:               <ul style="list-style-type: none"> <li>Reflect the current published philosophy of the profession.</li> <li>Include a statement of the program's fundamental beliefs about human beings and how they learn.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>The statement of the mission of the occupational therapy assistant program must:               <ul style="list-style-type: none"> <li>Be consistent with and supportive of the mission of the sponsoring institution.</li> <li>Explain the unique nature of the program and how it helps fulfill or advance the mission of the sponsoring institution, including religious missions.</li> </ul> </li> <li>The statement of philosophy of the occupational therapy assistant program must:               <ul style="list-style-type: none"> <li>Reflect the current published philosophy of the profession.</li> <li>Include a statement of the program's fundamental beliefs about human beings and how they learn.</li> </ul> </li> </ul>
<b>A.5.5. Curriculum Design</b>				
A.5.5.	<p>The curriculum design must reflect the mission and philosophy of both the occupational therapy program and the institution and must provide the basis for program planning, implementation, and evaluation. The design must identify curricular threads and educational goals and describe the selection of the content, scope, and sequencing of coursework.</p> <p>The instructional design must reflect the curriculum and ensure appropriate content delivery.</p>	<p>The curriculum design must reflect the mission and philosophy of both the occupational therapy program and the institution and must provide the basis for program planning, implementation, and evaluation. The design must identify curricular threads and educational goals and describe the selection of the content, scope, and sequencing of coursework.</p> <p>The instructional design must reflect the curriculum and ensure appropriate content delivery.</p>	<p>The curriculum design must reflect the mission and philosophy of both the occupational therapy assistant program and the institution and must provide the basis for program planning, implementation, and evaluation. The design must identify curricular threads and educational goals and describe the selection of the content, scope, and sequencing of coursework.</p> <p>The instructional design must reflect the curriculum and ensure appropriate content delivery.</p>	<p>The curriculum design must reflect the mission and philosophy of both the occupational therapy assistant program and the institution and must provide the basis for program planning, implementation, and evaluation. The design must identify curricular threads and educational goals and describe the selection of the content, scope, and sequencing of coursework.</p> <p>The instructional design must reflect the curriculum and ensure appropriate content delivery.</p>

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<b>A.5.6. Scholarship Agenda</b>				
A.5.6.	The program must have a documented agenda of scholarship that reflects the curriculum design and mission of the program and institution.	The program must have a documented agenda of scholarship that reflects the curriculum design and mission of the program and institution.	The program must have a documented agenda of scholarship that reflects the curriculum design and mission of the program and institution.	The program must have a documented agenda of scholarship that reflects the curriculum design and mission of the program and institution.
<b>A.5.7. Written Syllabi and Assessment Strategies</b>				
A.5.7.	<p>The program must have written syllabi for each course that include course objectives and learning activities that, in total, reflect all course content required by the Standards. Instructional methods (e.g., presentations, demonstrations, discussion) used to accomplish course objectives must be documented. Programs must also demonstrate the consistency between course syllabi and the curriculum design.</p> <p>Assessment strategies to assure the acquisition of knowledge, skills, attitudes, professional behaviors, and competencies must be aligned with course objectives and required for progress in the program and graduation.</p>	<p>The program must have written syllabi for each course that include course objectives and learning activities that, in total, reflect all course content required by the Standards. Instructional methods (e.g., presentations, demonstrations, discussion) used to accomplish course objectives must be documented. Programs must also demonstrate the consistency between course syllabi and the curriculum design.</p> <p>Assessment strategies to assure the acquisition of knowledge, skills, attitudes, professional behaviors, and competencies must be aligned with course objectives and required for progress in the program and graduation.</p>	<p>The program must have written syllabi for each course that include course objectives and learning activities that, in total, reflect all course content required by the Standards. Instructional methods (e.g., presentations, demonstrations, discussion) used to accomplish course objectives must be documented. Programs must also demonstrate the consistency between course syllabi and the curriculum design.</p> <p>Assessment strategies to assure the acquisition of knowledge, skills, attitudes, professional behaviors, and competencies must be aligned with course objectives and required for progress in the program and graduation.</p>	<p>The program must have written syllabi for each course that include course objectives and learning activities that, in total, reflect all course content required by the Standards. Instructional methods (e.g., presentations, demonstrations, discussion) used to accomplish course objectives must be documented. Programs must also demonstrate the consistency between course syllabi and the curriculum design.</p> <p>Assessment strategies to assure the acquisition of knowledge, skills, attitudes, professional behaviors, and competencies must be aligned with course objectives and required for progress in the program and graduation.</p>
<b>A.6.0. STRATEGIC PLAN AND PROGRAM ASSESSMENT</b>				
For programs that are offered at more than one location, the program's strategic plan, evaluation plan, and results of ongoing evaluation must address each program location as a component of the overall plan.				
<b>A.6.1. Strategic Plan</b>				
A.6.1.	<p>The program must document a current strategic plan that articulates the program's future vision and scholarship agenda, which guides the program (e.g., faculty recruitment and professional growth, scholarship, changes in the curriculum design, priorities in academic resources, procurement of fieldwork and doctoral capstone sites). A program strategic plan must reflect a minimum of a 3-year period and include, but need not be limited to:</p> <ul style="list-style-type: none"> <li>Evidence that the plan is based on program evaluation and an analysis of external and internal environments.</li> </ul>	<p>The program must document a current strategic plan that articulates the program's future vision and scholarship agenda, which guides the program (e.g., faculty recruitment and professional growth, scholarship, changes in the curriculum design, priorities in academic resources, procurement of fieldwork sites). A program strategic plan must reflect a minimum of a 3-year period and include, but need not be limited to:</p> <ul style="list-style-type: none"> <li>Evidence that the plan is based on program evaluation and an analysis of external and internal environments.</li> <li>Long-term goals that address the</li> </ul>	<p>The program must document a current strategic plan that articulates the program's future vision and scholarship agenda, which guides the program (e.g., faculty recruitment and professional growth, scholarship, changes in the curriculum design, priorities in academic resources, procurement of fieldwork sites and baccalaureate project). A program strategic plan must reflect a minimum of a 3-year period and include, but need not be limited to:</p> <ul style="list-style-type: none"> <li>Evidence that the plan is based on program evaluation and an analysis of external and internal environments.</li> </ul>	<p>The program must document a current strategic plan that articulates the program's future vision and scholarship agenda, which guides the program (e.g., faculty recruitment and professional growth, scholarship, changes in the curriculum design, priorities in academic resources, procurement of fieldwork sites). A program strategic plan must reflect a minimum of a 3-year period and include, but need not be limited to:</p> <ul style="list-style-type: none"> <li>Evidence that the plan is based on program evaluation and an analysis of external and internal environments.</li> <li>Long-term goals that address the</li> </ul>

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	<ul style="list-style-type: none"> <li>Long-term goals that address the vision and mission of both the institution and the program, as well as specific needs of the program.</li> <li>Specific measurable action steps with expected timelines by which the program will reach its long-term goals.</li> <li>Person(s) responsible for action steps.</li> <li>Evidence of periodic updating of action steps and long-term goals as they are met or as circumstances change.</li> </ul>	<ul style="list-style-type: none"> <li>vision and mission of both the institution and the program, as well as specific needs of the program.</li> <li>Specific measurable action steps with expected timelines by which the program will reach its long-term goals.</li> <li>Person(s) responsible for action steps.</li> <li>Evidence of periodic updating of action steps and long-term goals as they are met or as circumstances change.</li> </ul>	<ul style="list-style-type: none"> <li>Long-term goals that address the vision and mission of both the institution and the program, as well as specific needs of the program.</li> <li>Specific measurable action steps with expected timelines by which the program will reach its long-term goals.</li> <li>Person(s) responsible for action steps.</li> <li>Evidence of periodic updating of action steps and long-term goals as they are met or as circumstances change.</li> </ul>	<ul style="list-style-type: none"> <li>vision and mission of both the institution and the program, as well as specific needs of the program.</li> <li>Specific measurable action steps with expected timelines by which the program will reach its long-term goals.</li> <li>Person(s) responsible for action steps.</li> <li>Evidence of periodic updating of action steps and long-term goals as they are met or as circumstances change.</li> </ul>
<b>A.6.2. Professional Development Plans</b>				
A.6.2.	<p>The program director and each faculty member who teaches two or more courses must have a current written professional growth and development plan. Each plan must contain the signature of the faculty member and supervisor (electronic/typed signature is acceptable). At a minimum, the plan must include, but need not be limited to:</p> <ul style="list-style-type: none"> <li>Goals to enhance the faculty member's ability to fulfill designated responsibilities (e.g., goals related to areas of teaching responsibility, teaching effectiveness, scholarly activity).</li> <li>Evidence of currency in the areas of teaching responsibilities.</li> <li>Specific measurable action steps with expected timelines by which the faculty member will achieve the goals.</li> <li>Evidence of annual updates of action steps and goals as they are met or as circumstances change.</li> <li>Identification of the ways in which the faculty member's professional development plan will contribute to attaining the program's strategic goals.</li> </ul>	<p>The program director and each faculty member who teaches two or more courses must have a current written professional growth and development plan. Each plan must contain the signature of the faculty member and supervisor (electronic/typed signature is acceptable). At a minimum, the plan must include, but need not be limited to:</p> <ul style="list-style-type: none"> <li>Goals to enhance the faculty member's ability to fulfill designated responsibilities (e.g., goals related to areas of teaching responsibility, teaching effectiveness, scholarly activity).</li> <li>Evidence of currency in the areas of teaching responsibilities.</li> <li>Specific measurable action steps with expected timelines by which the faculty member will achieve the goals.</li> <li>Evidence of annual updates of action steps and goals as they are met or as circumstances change.</li> <li>Identification of the ways in which the faculty member's professional development plan will contribute to attaining the program's strategic goals.</li> </ul>	<p>The program director and each faculty member who teaches two or more courses must have a current written professional growth and development plan. Each plan must contain the signature of the faculty member and supervisor (electronic/typed signature is acceptable). At a minimum, the plan must include, but need not be limited to:</p> <ul style="list-style-type: none"> <li>Goals to enhance the faculty member's ability to fulfill designated responsibilities (e.g., goals related to areas of teaching responsibility, teaching effectiveness, scholarly activity).</li> <li>Evidence of currency in the areas of teaching responsibilities.</li> <li>Specific measurable action steps with expected timelines by which the faculty member will achieve the goals.</li> <li>Evidence of annual updates of action steps and goals as they are met or as circumstances change.</li> <li>Identification of the ways in which the faculty member's professional development plan will contribute to attaining the program's strategic goals.</li> </ul>	<p>The program director and each faculty member who teaches two or more courses must have a current written professional growth and development plan. Each plan must contain the signature of the faculty member and supervisor (electronic/typed signature is acceptable). At a minimum, the plan must include, but need not be limited to:</p> <ul style="list-style-type: none"> <li>Goals to enhance the faculty member's ability to fulfill designated responsibilities (e.g., goals related to areas of teaching responsibility, teaching effectiveness, scholarly activity).</li> <li>Evidence of currency in the areas of teaching responsibilities.</li> <li>Specific measurable action steps with expected timelines by which the faculty member will achieve the goals.</li> <li>Evidence of annual updates of action steps and goals as they are met or as circumstances change.</li> <li>Identification of the ways in which the faculty member's professional development plan will contribute to attaining the program's strategic goals.</li> </ul>



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	<ul style="list-style-type: none"> <li>The individual faculty member's designated responsibilities (e.g., every plan does not need to include scholarly activity if this is not part of the faculty member's responsibilities. Similarly, if the faculty member's primary role is research, he or she may not need a goal related to teaching effectiveness).</li> </ul>	<ul style="list-style-type: none"> <li>The individual faculty member's designated responsibilities (e.g., every plan does not need to include scholarly activity if this is not part of the faculty member's responsibilities. Similarly, if the faculty member's primary role is research, he or she may not need a goal related to teaching effectiveness).</li> </ul>	<ul style="list-style-type: none"> <li>The individual faculty member's designated responsibilities (e.g., every plan does not need to include scholarly activity if this is not part of the faculty member's responsibilities.).</li> </ul>	<ul style="list-style-type: none"> <li>The individual faculty member's designated responsibilities (e.g., every plan does not need to include scholarly activity if this is not part of the faculty member's responsibilities.).</li> </ul>
<b>A.6.3. Program Evaluation</b>				
A.6.3.	<p>Programs must routinely secure and document sufficient qualitative and quantitative information to allow for analysis about the extent to which the program is meeting its stated goals and objectives to inform strategic changes. This must include, but need not be limited to:</p> <ul style="list-style-type: none"> <li>Faculty effectiveness in their assigned teaching responsibilities.</li> <li>Effectiveness of instructional design.</li> <li>Students' competency in professional behaviors.</li> <li>Students' progression through the program.</li> <li>Student retention rates.</li> <li>Fieldwork and doctoral capstone performance evaluation.</li> <li>Student evaluation of fieldwork and the doctoral capstone experience.</li> <li>Evaluation of doctoral capstone outcomes.</li> <li>Student satisfaction with the program.</li> <li>Graduates' performance on the NBCOT certification exam.</li> <li>Graduates' job placement and performance as determined by employer satisfaction.</li> <li>Graduates' scholarly activity (e.g., presentations, publications, grants obtained, state and national leadership positions, awards).</li> </ul> <p>Programs must routinely and systematically analyze data to determine</p>	<p>Programs must routinely secure and document sufficient qualitative and quantitative information to allow for analysis about the extent to which the program is meeting its stated goals and objectives to inform strategic changes. This must include, but need not be limited to:</p> <ul style="list-style-type: none"> <li>Faculty effectiveness in their assigned teaching responsibilities.</li> <li>Effectiveness of instructional design.</li> <li>Students' competency in professional behaviors.</li> <li>Students' progression through the program.</li> <li>Student retention rates.</li> <li>Fieldwork performance evaluation.</li> <li>Student evaluation of fieldwork experience.</li> <li>Student satisfaction with the program.</li> <li>Graduates' performance on the NBCOT certification exam.</li> <li>Graduates' job placement and performance as determined by employer satisfaction.</li> </ul> <p>Programs must routinely and systematically analyze data to determine the extent to which the program is meeting its stated goals and objectives. An annual report summarizing analysis of data and planned action responses must be maintained.</p> <p>The results of ongoing evaluation must be</p>	<p>Programs must routinely secure and document sufficient qualitative and quantitative information to allow for analysis about the extent to which the program is meeting its stated goals and objectives to inform strategic changes. This must include, but need not be limited to:</p> <ul style="list-style-type: none"> <li>Faculty effectiveness in their assigned teaching responsibilities.</li> <li>Effectiveness of instructional design.</li> <li>Students' competency in professional behaviors.</li> <li>Students' progression through the program.</li> <li>Student retention rates.</li> <li>Fieldwork and baccalaureate project performance evaluation.</li> <li>Student evaluation of fieldwork and the baccalaureate project experience.</li> <li>Evaluation of baccalaureate project outcomes.</li> <li>Student satisfaction with the program.</li> <li>Graduates' performance on the NBCOT certification exam.</li> <li>Graduates' job placement and performance as determined by employer satisfaction.</li> </ul> <p>Programs must routinely and systematically analyze data to determine the extent to which the program is meeting its stated goals and objectives. An annual report summarizing analysis of data and planned action responses must</p>	<p>Programs must routinely secure and document sufficient qualitative and quantitative information to allow for analysis about the extent to which the program is meeting its stated goals and objectives to inform strategic changes. This must include, but need not be limited to:</p> <ul style="list-style-type: none"> <li>Faculty effectiveness in their assigned teaching responsibilities.</li> <li>Effectiveness of instructional design.</li> <li>Students' competency in professional behaviors.</li> <li>Students' progression through the program.</li> <li>Student retention rates.</li> <li>Fieldwork performance evaluation.</li> <li>Student evaluation of fieldwork experience.</li> <li>Student satisfaction with the program.</li> <li>Graduates' performance on the NBCOT certification exam.</li> <li>Graduates' job placement and performance as determined by employer satisfaction.</li> </ul> <p>Programs must routinely and systematically analyze data to determine the extent to which the program is meeting its stated goals and objectives. An annual report summarizing analysis of data and planned action responses must be maintained.</p> <p>The results of ongoing evaluation must be</p>

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	the extent to which the program is meeting its stated goals and objectives. An annual report summarizing analysis of data and planned action responses must be maintained.  The results of ongoing evaluation must be appropriately reflected in the program's strategic plan, curriculum, and other dimensions of the program.	appropriately reflected in the program's strategic plan, curriculum, and other dimensions of the program.	be maintained.  The results of ongoing evaluation must be appropriately reflected in the program's strategic plan, curriculum, and other dimensions of the program.	appropriately reflected in the program's strategic plan, curriculum, and other dimensions of the program.
<b>A.6.4. Certification Exam Pass Rate</b>				
A.6.4.	The average pass rate over the 3 most recent calendar years for graduates attempting the national certification exam within 12 months of graduation from the program must be 80% or higher (regardless of the number of attempts). If a program has fewer than 25 test takers in the 3 most recent calendar years, the program may include test takers from additional years until it reaches 25 or until the 5 most recent calendar years are included in the total. Programs that did not have candidates who sat for the exam in each of the 3 most recent calendar years must meet the required 80% pass rate each year until data for 3 calendar years are available.	The average pass rate over the 3 most recent calendar years for graduates attempting the national certification exam within 12 months of graduation from the program must be 80% or higher (regardless of the number of attempts). If a program has fewer than 25 test takers in the 3 most recent calendar years, the program may include test takers from additional years until it reaches 25 or until the 5 most recent calendar years are included in the total. Programs that did not have candidates who sat for the exam in each of the 3 most recent calendar years must meet the required 80% pass rate each year until data for 3 calendar years are available.	The average pass rate over the 3 most recent calendar years for graduates attempting the national certification exam within 12 months of graduation from the program must be 80% or higher (regardless of the number of attempts). If a program has fewer than 25 test takers in the 3 most recent calendar years, the program may include test takers from additional years until it reaches 25 or until the 5 most recent calendar years are included in the total. Programs that did not have candidates who sat for the exam in each of the 3 most recent calendar years must meet the required 80% pass rate each year until data for 3 calendar years are available.	The average pass rate over the 3 most recent calendar years for graduates attempting the national certification exam within 12 months of graduation from the program must be 80% or higher (regardless of the number of attempts). If a program has fewer than 25 test takers in the 3 most recent calendar years, the program may include test takers from additional years until it reaches 25 or until the 5 most recent calendar years are included in the total. Programs that did not have candidates who sat for the exam in each of the 3 most recent calendar years must meet the required 80% pass rate each year until data for 3 calendar years are available.
<b>SECTION B: CONTENT REQUIREMENTS</b>				
The content requirements are written as expected student outcomes. Faculty are responsible for developing learning activities and evaluation methods to document that students meet these outcomes. Level II Fieldwork, the Baccalaureate Project, or the Doctoral Capstone Experience and Project syllabi may not be used to document compliance with a section B content Standard.				
<b>B.1.0. FOUNDATIONAL CONTENT REQUIREMENTS</b>				
Program content must be based on a broad foundation in the liberal arts and sciences. A strong foundation in the biological, physical, social, and behavioral sciences supports an understanding of occupation across the lifespan. If the content of the Standard is met through prerequisite coursework, the application of foundational content in the sciences must also be evident in professional coursework. The student will be able to:				
<b>B.1.1. Human Body, Development, and Behavior</b>				
B.1.1.	Demonstrate knowledge of: <ul style="list-style-type: none"> <li>The structure and function of the human body to include the biological and physical sciences, neurosciences,</li> </ul>	Demonstrate knowledge of: <ul style="list-style-type: none"> <li>The structure and function of the human body to include the biological and physical sciences, neurosciences,</li> </ul>	Demonstrate knowledge of: <ul style="list-style-type: none"> <li>The structure and function of the human body to include the biological and physical sciences, neurosciences,</li> </ul>	Demonstrate knowledge of: <ul style="list-style-type: none"> <li>The structure and function of the human body to include the biological and physical sciences, neurosciences,</li> </ul>

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	<p>kinesiology, and biomechanics.</p> <ul style="list-style-type: none"> <li>Human development throughout the lifespan (infants, children, adolescents, adults, and older adults). Course content must include, but is not limited to, developmental psychology.</li> <li>Concepts of human behavior to include the behavioral sciences, social sciences, and science of occupation.</li> </ul>	<p>kinesiology, and biomechanics.</p> <ul style="list-style-type: none"> <li>Human development throughout the lifespan (infants, children, adolescents, adults, and older adults). Course content must include, but is not limited to, developmental psychology.</li> <li>Concepts of human behavior to include the behavioral sciences, social sciences, and science of occupation.</li> </ul>	<p>kinesiology, and biomechanics.</p> <ul style="list-style-type: none"> <li>Human development throughout the lifespan (infants, children, adolescents, adults, and older adults). Course content must include, but is not limited to, developmental psychology.</li> <li>Concepts of human behavior to include the behavioral sciences, social sciences, and science of occupation.</li> </ul>	<p>kinesiology, and biomechanics.</p> <ul style="list-style-type: none"> <li>Human development throughout the lifespan (infants, children, adolescents, adults, and older adults). Course content must include, but is not limited to, developmental psychology.</li> <li>Concepts of human behavior to include the behavioral sciences, social sciences, and science of occupation.</li> </ul>
<b>B.1.2. Sociocultural, Socioeconomic, Diversity Factors, and Lifestyle Choices</b>				
B.1.2.	Apply, analyze, and evaluate the role of sociocultural, socioeconomic, diversity factors, and lifestyle choices in contemporary society to meet the needs of persons, groups, and populations. Course content must include, but is not limited to, introductory psychology, abnormal psychology, and introductory sociology or introductory anthropology.	Apply and analyze the role of sociocultural, socioeconomic, diversity factors, and lifestyle choices in contemporary society to meet the needs of persons, groups, and populations. Course content must include, but is not limited to, introductory psychology, abnormal psychology, and introductory sociology or introductory anthropology.	Apply knowledge and appreciation of the role of sociocultural, socioeconomic, diversity factors, and lifestyle choices in contemporary society to meet the needs of persons, groups, and populations (e.g., principles of psychology, sociology, and abnormal psychology).	Explain the role of sociocultural, socioeconomic, diversity factors, and lifestyle choices in contemporary society to meet the needs of persons, groups, and populations (e.g., principles of psychology, sociology, and abnormal psychology).
<b>B.1.3. Social Determinants of Health</b>				
B.1.3.	Demonstrate knowledge of the social determinants of health for persons, groups, and populations with or at risk for disabilities and chronic health conditions. This must include an analysis of the epidemiological factors that impact the public health and welfare of populations.	Demonstrate knowledge of the social determinants of health for persons, groups, and populations with or at risk for disabilities and chronic health conditions. This must include an analysis of the epidemiological factors that impact the public health and welfare of populations.	Demonstrate knowledge of the social determinants of health for persons, groups, and populations with or at risk for disabilities and chronic health conditions. This must include an understanding of the epidemiological factors that impact the public health and welfare of populations.	Demonstrate knowledge of the social determinants of health for persons, groups, and populations with or at risk for disabilities and chronic health conditions. This must include an understanding of the epidemiological factors that impact the public health and welfare of populations.
<b>B.1.4. Quantitative Statistics and Qualitative Analysis</b>				
B.1.4.	Demonstrate the ability to use quantitative statistics and qualitative analysis to interpret tests and measurements for the purpose of establishing and delivering evidence-based practice.	Demonstrate the ability to use quantitative statistics and qualitative analysis to interpret tests and measurements for the purpose of establishing and delivering evidence-based practice.	(No related Standard)	(No related Standard)
<b>B.2.0. OCCUPATIONAL THERAPY THEORETICAL PERSPECTIVES</b>				
Current and relevant interprofessional perspectives including rehabilitation, disability, and developmental as well as person/population-environment-occupation models, theories and frameworks of practice. The program must facilitate the development of the performance criteria listed below. The student will be able to:				
<b>B.2.1. Scientific Evidence, Theories, Models of Practice, and Frames of Reference</b>				
B.2.1.	Apply, analyze, and evaluate scientific evidence, theories, models of practice, and frames of reference that underlie the	Apply, analyze, and evaluate scientific evidence, theories, models of practice, and frames of reference that underlie the	Apply scientific evidence, theories, models of practice, and frames of reference that underlie the practice of occupational	Apply scientific evidence, theories, models of practice, and frames of reference that underlie the practice of occupational

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	practice of occupational therapy to guide and inform interventions for persons, groups, and populations in a variety of practice contexts and environments.	practice of occupational therapy to guide and inform interventions for persons, groups, and populations in a variety of practice contexts and environments.	therapy to guide and inform interventions for persons, groups, and populations in a variety of practice contexts and environments.	therapy to guide and inform interventions for persons, groups, and populations in a variety of practice contexts and environments.
<b>B.2.2. Theory Development</b>				
B.2.2.	Explain the process of theory development in occupational therapy and its desired impact and influence on society.	Explain the process of theory development and its importance to occupational therapy.	Define the process of theory development and its importance to occupational therapy.	Define the process of theory development and its importance to occupational therapy.
<b>B.3.0. BASIC TENETS OF OCCUPATIONAL THERAPY</b>				
Coursework must facilitate development of the performance criteria listed below. The student will be able to:				
<b>B.3.1. OT History, Philosophical Base, Theory, and Socioeconomic Climate</b>				
B.3.1.	Analyze and evaluate occupational therapy history, philosophical base, theory, and sociopolitical climate and their importance in meeting society's current and future occupational needs as well as how these factors influence and are influenced by practice.	Analyze occupational therapy history, philosophical base, theory, and sociopolitical climate and their importance in meeting society's current and future occupational needs as well as how these factors influence and are influenced by practice.	Apply knowledge of occupational therapy history, philosophical base, theory, and sociopolitical climate and their importance in meeting society's current and future occupational needs as well as how these factors influence and are influenced by practice.	Apply knowledge of occupational therapy history, philosophical base, theory, and sociopolitical climate and their importance in meeting society's current and future occupational needs as well as how these factors influence and are influenced by practice.
<b>B.3.2. Interaction of Occupation and Activity</b>				
B.3.2.	Apply, analyze, and evaluate the interaction of occupation and activity, including areas of occupation, performance skills, performance patterns, context(s) and environments, and client factors.	Apply, analyze, and evaluate the interaction of occupation and activity, including areas of occupation, performance skills, performance patterns, context(s) and environments, and client factors.	Demonstrate knowledge of and apply the interaction of occupation and activity, including areas of occupation, performance skills, performance patterns, context(s) and environments, and client factors.	Demonstrate knowledge of and apply the interaction of occupation and activity, including areas of occupation, performance skills, performance patterns, context(s) and environments, and client factors.
<b>B.3.3. Distinct Nature of Occupation</b>				
B.3.3.	Explain to consumers, potential employers, colleagues, third-party payers, regulatory boards, policymakers, and the general public the distinct nature of occupation and the evidence that occupation supports performance, participation, health, and well-being.	Explain to consumers, potential employers, colleagues, third-party payers, regulatory boards, policymakers, and the general public the distinct nature of occupation and the evidence that occupation supports performance, participation, health, and well-being.	Explain to consumers, potential employers, colleagues, third-party payers, regulatory boards, policymakers, and the general public the distinct nature of occupation and the evidence that occupation supports performance, participation, health, and well-being.	Explain to consumers, potential employers, colleagues, third-party payers, regulatory boards, policymakers, and the general public the distinct nature of occupation and the evidence that occupation supports performance, participation, health, and well-being.
<b>B.3.4. Balancing Areas of Occupation, Role in Promotion of Health, and Prevention</b>				
B.3.4.	Apply, analyze, and evaluate scientific evidence to explain the importance of balancing areas of occupation; the role of occupation in the promotion of health; and the prevention of disease, illness, and dysfunction for persons, groups, and populations.	Apply and analyze scientific evidence to explain the importance of balancing areas of occupation; the role of occupation in the promotion of health; and the prevention of disease, illness, and dysfunction for persons, groups, and populations.	Demonstrate knowledge of scientific evidence as it relates to the importance of balancing areas of occupation; the role of occupation in the promotion of health; and the prevention of disease, illness, and dysfunction for persons, groups, and populations.	Demonstrate knowledge of scientific evidence as it relates to the importance of balancing areas of occupation; the role of occupation in the promotion of health; and the prevention of disease, illness, and dysfunction for persons, groups, and populations.



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<b>B.3.5. Effects of Disease Processes</b>				
B.3.5.	Analyze and evaluate the effects of disease processes including heritable diseases, genetic conditions, mental illness, disability, trauma, and injury on occupational performance.	Analyze the effects of disease processes including heritable diseases, genetic conditions, mental illness, disability, trauma, and injury on occupational performance.	Demonstrate knowledge of the effects of disease processes including heritable diseases, genetic conditions, mental illness, disability, trauma, and injury on occupational performance.	Demonstrate knowledge of the effects of disease processes including heritable diseases, genetic conditions, mental illness, disability, trauma, and injury on occupational performance.
<b>B.3.6. Activity Analysis</b>				
B.3.6.	Demonstrate activity analysis in areas of occupation, performance skills, performance patterns, context(s) and environments, and client factors to formulate the intervention plan.	Demonstrate activity analysis in areas of occupation, performance skills, performance patterns, context(s) and environments, and client factors to formulate the intervention plan.	Demonstrate activity analysis in areas of occupation, performance skills, performance patterns, context(s) and environments, and client factors to implement the intervention plan.	Demonstrate activity analysis in areas of occupation, performance skills, performance patterns, context(s) and environments, and client factors to implement the intervention plan.
<b>B.3.7. Safety of Self and Others</b>				
B.3.7.	Demonstrate sound judgment in regard to safety of self and others and adhere to safety regulations throughout the occupational therapy process as appropriate to the setting and scope of practice. This must include the ability to assess and monitor vital signs (e.g., blood pressure, heart rate, respiratory status, and temperature) to ensure that the client is stable for intervention.	Demonstrate sound judgment in regard to safety of self and others and adhere to safety regulations throughout the occupational therapy process as appropriate to the setting and scope of practice. This must include the ability to assess and monitor vital signs (e.g., blood pressure, heart rate, respiratory status, and temperature) to ensure that the client is stable for intervention.	Demonstrate sound judgment in regard to safety of self and others and adhere to safety regulations throughout the occupational therapy process as appropriate to the setting and scope of practice. This must include the ability to assess and monitor vital signs (e.g., blood pressure, heart rate, respiratory status, and temperature) to ensure that the client is stable for intervention.	Demonstrate sound judgment in regard to safety of self and others and adhere to safety regulations throughout the occupational therapy process as appropriate to the setting and scope of practice. This must include the ability to assess and monitor vital signs (e.g., blood pressure, heart rate, respiratory status, and temperature) to ensure that the client is stable for intervention.
B.4.0.	<b>REFERRAL, SCREENING, EVALUATION, AND INTERVENTION PLAN</b> The process of referral, screening, evaluation, and diagnosis as related to occupational performance and participation must be client centered; culturally relevant; and based on theoretical perspectives, models of practice, frames of reference, and available evidence.  <b>INTERVENTION PLAN: FORMULATION AND IMPLEMENTATION</b> The process of formulation and implementation of the therapeutic intervention plan to facilitate occupational performance and participation must be client centered and culturally relevant; reflective of current and emerging occupational therapy practice; based on available evidence; and based on theoretical perspectives, models of practice, and frames of reference. These processes must consider the needs of persons, groups, and populations. The program must facilitate development of the performance criteria listed below. The student will be able to:		<b>SCREENING, EVALUATION, AND INTERVENTION PLAN</b> The process of screening and evaluation as related to occupational performance and participation must be conducted under the supervision of and in cooperation with the occupational therapist and must be client centered; culturally relevant; and based on theoretical perspectives, models of practice, frames of reference, and available evidence. These processes must consider the needs of persons, groups, and populations.  <b>INTERVENTION AND IMPLEMENTATION</b> The process of intervention to facilitate occupational performance and participation must be done under the supervision of and in cooperation with the occupational therapist and must be client centered, culturally relevant, reflective of current occupational therapy practice, and based on available evidence. The program must facilitate development of the performance criteria listed below. The student will be able to:	
<b>B.4.1. Therapeutic Use of Self</b>				
B.4.1.	Demonstrate therapeutic use of self, including one's personality, insights,	Demonstrate therapeutic use of self, including one's personality, insights,	Demonstrate therapeutic use of self, including one's personality, insights,	Demonstrate therapeutic use of self, including one's personality, insights,

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	perceptions, and judgments, as part of the therapeutic process in both individual and group interaction.	perceptions, and judgments, as part of the therapeutic process in both individual and group interaction.	perceptions, and judgments, as part of the therapeutic process in both individual and group interaction.	perceptions, and judgments, as part of the therapeutic process in both individual and group interaction.
<b>B.4.2. Clinical Reasoning</b>				
B.4.2.	Demonstrate clinical reasoning to evaluate, analyze, diagnose, and provide occupation-based interventions to address client factors, performance patterns, and performance skills.	Demonstrate clinical reasoning to evaluate, analyze, diagnose, and provide occupation-based interventions to address client factors, performance patterns, and performance skills.	Demonstrate clinical reasoning to address occupation-based interventions, client factors, performance patterns, and performance skills.	Demonstrate clinical reasoning to address occupation-based interventions, client factors, performance patterns, and performance skills.
<b>B.4.3. Occupation-Based Interventions</b>				
B.4.3.	Utilize clinical reasoning to facilitate occupation-based interventions that address client factors. This must include interventions focused on promotion, compensation, adaptation, and prevention.	Utilize clinical reasoning to facilitate occupation-based interventions that address client factors. This must include interventions focused on promotion, compensation, adaptation, and prevention.	Utilize clinical reasoning to facilitate occupation-based interventions that address client factors. This must include interventions focused on promotion, compensation, adaptation, and prevention.	Utilize clinical reasoning to facilitate occupation-based interventions that address client factors. This must include interventions focused on promotion, compensation, adaptation, and prevention.
<b>B.4.4. Standardized and Nonstandardized Screening and Assessment Tools</b>				
B.4.4.	<p>Evaluate client(s)' occupational performance, including occupational profile, by analyzing and selecting standardized and non-standardized screenings and assessment tools to determine the need for occupational therapy intervention(s). Assessment methods must take into consideration cultural and contextual factors of the client.</p> <p>Interpret evaluation findings of occupational performance and participation deficits to develop occupation-based intervention plans and strategies.</p> <p>Intervention plans and strategies must be client-centered, culturally relevant, reflective of current occupational therapy practice, and based on available evidence.</p>	<p>Evaluate client(s)' occupational performance, including occupational profile, by analyzing and selecting standardized and non-standardized screenings and assessment tools to determine the need for occupational therapy intervention(s). Assessment methods must take into consideration cultural and contextual factors of the client.</p> <p>Interpret evaluation findings of occupational performance and participation deficits to develop occupation-based intervention plans and strategies.</p> <p>Intervention plans and strategies must be client-centered, culturally relevant, reflective of current occupational therapy practice, and based on available evidence.</p>	<p>Contribute to the evaluation process of client(s)' occupational performance, including an occupational profile, by administering standardized and nonstandardized screenings and assessment tools and collaborating in the development of occupation-based intervention plans and strategies.</p> <p>Explain the importance of using psychometrically sound assessment tools when considering client needs, and cultural and contextual factors to deliver evidence-based intervention plans and strategies.</p> <p>Intervention plans and strategies must be client-centered, culturally relevant, reflective of current occupational therapy practice, and based on available evidence.</p>	<p>Contribute to the evaluation process of client(s)' occupational performance, including an occupational profile, by administering standardized and nonstandardized screenings and assessment tools and collaborating in the development of occupation-based intervention plans and strategies.</p> <p>Explain the importance of using psychometrically sound assessment tools when considering client needs, and cultural and contextual factors to deliver evidence-based intervention plans and strategies.</p> <p>Intervention plans and strategies must be client-centered, culturally relevant, reflective of current occupational therapy practice, and based on available evidence.</p>
<b>B.4.5. Application of Assessment Tools and Interpretation of Results</b>				
B.4.5.	<p>Select and apply assessment tools, considering client needs, and cultural and contextual factors.</p> <p>Administer selected standardized and nonstandardized assessments using appropriate procedures and protocols.</p>	<p>Select and apply assessment tools, considering client needs, and cultural and contextual factors.</p> <p>Administer selected standardized and nonstandardized assessments using appropriate procedures and protocols.</p>	(No related Standard)	(No related Standard)

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	Interpret the results based on psychometric properties of tests considering factors that might bias assessment results (e.g., culture and disability status related to the person and context).	Interpret the results based on psychometric properties of tests considering factors that might bias assessment results (e.g., culture and disability status related to the person and context).		
<b>B.4.6. Reporting Data</b>				
B.4.6.	Collect, analyze, and report data in a systematic manner for evaluation of client and practice outcomes. Report evaluation results and modify practice as needed.	Collect, analyze, and report data in a systematic manner for evaluation of client and practice outcomes. Report evaluation results and modify practice as needed.	Under the direction of an occupational therapist, collect, organize, and report on data for evaluation of client outcomes.	Under the direction of an occupational therapist, collect, organize, and report on data for evaluation of client outcomes.
<b>B.4.7. Interpret Standardized Test Scores</b>				
B.4.7.	Interpret criterion-referenced and norm-referenced standardized test scores on the basis of an understanding of sampling, normative data, standard and criterion scores, reliability, and validity.	Interpret criterion-referenced and norm-referenced standardized test scores on the basis of an understanding of sampling, normative data, standard and criterion scores, reliability, and validity.	(No related Standard)	(No related Standard)
<b>B.4.8. Interpret Evaluation Data</b>				
B.4.8.	Interpret the evaluation data in relation to accepted terminology of the profession and explain the findings to the interprofessional team.	Interpret the evaluation data in relation to accepted terminology of the profession and explain the findings to the interprofessional team.	(No related Standard)	(No related Standard)
<b>B.4.9. Remediation and Compensation</b>				
B.4.9.	Design and implement intervention strategies to remediate and/or compensate for functional cognitive deficits, visual deficits, and psychosocial and behavioral health deficits that affect occupational performance.	Design and implement intervention strategies to remediate and/or compensate for functional cognitive deficits, visual deficits, and psychosocial and behavioral health deficits that affect occupational performance.	Demonstrate an understanding of the intervention strategies that remediate and/or compensate for functional cognitive deficits, visual deficits, and psychosocial and behavioral health deficits that affect occupational performance.	Demonstrate an understanding of the intervention strategies that remediate and/or compensate for functional cognitive deficits, visual deficits, and psychosocial and behavioral health deficits that affect occupational performance.
<b>B.4.10. Provide Interventions and Procedures</b>				
B.4.10.	Recommend and provide direct interventions and procedures to persons, groups, and populations to enhance safety, health and wellness, and performance in occupations.  This must include the ability to select and deliver occupations and activities, preparatory methods and tasks (including therapeutic exercise), education and training, and advocacy.	Recommend and provide direct interventions and procedures to persons, groups, and populations to enhance safety, health and wellness, and performance in occupations.  This must include the ability to select and deliver occupations and activities, preparatory methods and tasks (including therapeutic exercise), education and training, and advocacy.	Provide direct interventions and procedures to persons, groups, and populations to enhance safety, health and wellness, and performance in occupations.  This must include the ability to select and deliver occupations and activities, preparatory methods and tasks (including therapeutic exercise), education and training, and advocacy.	Provide direct interventions and procedures to persons, groups, and populations to enhance safety, health and wellness, and performance in occupations.  This must include the ability to select and deliver occupations and activities, preparatory methods and tasks (including therapeutic exercise), education and training, and advocacy.



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<b>B.4.11. Assistive Technologies and Devices</b>				
B.4.11.	Assess the need for and demonstrate the ability to design, fabricate, apply, fit, and train in assistive technologies and devices (e.g., electronic aids to daily living, seating and positioning systems) used to enhance occupational performance and foster participation and well-being.	Assess the need for and demonstrate the ability to design, fabricate, apply, fit, and train in assistive technologies and devices (e.g., electronic aids to daily living, seating and positioning systems) used to enhance occupational performance and foster participation and well-being.	Explain the need for and demonstrate strategies with assistive technologies and devices (e.g., electronic aids to daily living, seating and positioning systems) used to enhance occupational performance and foster participation and well-being.	Explain the need for and demonstrate strategies with assistive technologies and devices (e.g., electronic aids to daily living, seating and positioning systems) used to enhance occupational performance and foster participation and well-being.
<b>B.4.12. Orthoses and Prosthetic Devices</b>				
B.4.12.	Assess the need for orthotics, and design, fabricate, apply, fit, and train in orthoses and devices used to enhance occupational performance and participation.  Train in the safe and effective use of prosthetic devices.	Assess the need for orthotics, and design, fabricate, apply, fit, and train in orthoses and devices used to enhance occupational performance and participation.  Train in the safe and effective use of prosthetic devices.	Explain the need for orthotics, and design, fabricate, apply, fit, and train in orthoses and devices used to enhance occupational performance and participation.  Train in the safe and effective use of prosthetic devices.	Explain the need for orthotics, and design, fabricate, apply, fit, and train in orthoses and devices used to enhance occupational performance and participation.  Train in the safe and effective use of prosthetic devices.
<b>B.4.13. Functional Mobility</b>				
B.4.13.	Provide recommendations and training in techniques to enhance functional mobility, including physical transfers, wheelchair management, and mobility devices.	Provide recommendations and training in techniques to enhance functional mobility, including physical transfers, wheelchair management, and mobility devices.	Provide training in techniques to enhance functional mobility, including physical transfers, wheelchair management, and mobility devices.	Provide training in techniques to enhance functional mobility, including physical transfers, wheelchair management, and mobility devices.
<b>B.4.14. Community Mobility</b>				
B.4.14.	Evaluate the needs of persons, groups, and populations to design programs that enhance community mobility, and implement transportation transitions, including driver rehabilitation and community access.	Evaluate the needs of persons, groups, and populations to design programs that enhance community mobility, and implement transportation transitions, including driver rehabilitation and community access.	Provide training in techniques to enhance community mobility, and address transportation transitions, including driver rehabilitation and community access.	Provide training in techniques to enhance community mobility, and address transportation transitions, including driver rehabilitation and community access.
<b>B.4.15. Technology in Practice</b>				
B.4.15.	Demonstrate knowledge of the use of technology in practice, which must include: <ul style="list-style-type: none"> <li>• Electronic documentation systems</li> <li>• Virtual environments</li> <li>• Telehealth technology</li> </ul>	Demonstrate knowledge of the use of technology in practice, which must include: <ul style="list-style-type: none"> <li>• Electronic documentation systems</li> <li>• Virtual environments</li> <li>• Telehealth technology</li> </ul>	Demonstrate knowledge of the use of technology in practice, which must include: <ul style="list-style-type: none"> <li>• Electronic documentation systems</li> <li>• Virtual environments</li> <li>• Telehealth technology</li> </ul>	Demonstrate knowledge of the use of technology in practice, which must include: <ul style="list-style-type: none"> <li>• Electronic documentation systems</li> <li>• Virtual environments</li> <li>• Telehealth technology</li> </ul>
<b>B.4.16. Dysphagia and Feeding Disorders</b>				
B.4.16.	Evaluate and provide interventions for dysphagia and disorders of feeding and eating to enable performance and train others in precautions and techniques while considering client and contextual factors.	Evaluate and provide interventions for dysphagia and disorders of feeding and eating to enable performance and train others in precautions and techniques while considering client and contextual factors.	Demonstrate interventions that address dysphagia and disorders of feeding and eating and train others in precautions and techniques while considering client and contextual factors.	Demonstrate interventions that address dysphagia and disorders of feeding and eating and train others in precautions and techniques while considering client and contextual factors.

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<b>B.4.17. Superficial Thermal, Deep Thermal, and Electrotherapeutic Agents and Mechanical Devices</b>				
B.4.17.	Demonstrate knowledge and use of the safe and effective application of superficial thermal agents, deep thermal agents, electrotherapeutic agents, and mechanical devices as a preparatory measure to improve occupational performance. This must include indications, contraindications, and precautions.	Demonstrate knowledge and use of the safe and effective application of superficial thermal agents, deep thermal agents, electrotherapeutic agents, and mechanical devices as a preparatory measure to improve occupational performance. This must include indications, contraindications, and precautions.	Define the safe and effective application of superficial thermal agents, deep thermal agents, electrotherapeutic agents, and mechanical devices as a preparatory measure to improve occupational performance. This must include indications, contraindications, and precautions.	Define the safe and effective application of superficial thermal agents, deep thermal agents, electrotherapeutic agents, and mechanical devices as a preparatory measure to improve occupational performance. This must include indications, contraindications, and precautions.
<b>B.4.18. Grade and Adapt Processes or Environments</b>				
B.4.18.	Assess, grade, and modify the way persons, groups, and populations perform occupations and activities by adapting processes, modifying environments, and applying ergonomic principles to reflect the changing needs of the client, sociocultural context, and technological advances.	Assess, grade, and modify the way persons, groups, and populations perform occupations and activities by adapting processes, modifying environments, and applying ergonomic principles to reflect the changing needs of the client, sociocultural context, and technological advances.	Assess, grade, and modify the way persons, groups, and populations perform occupations and activities by adapting processes, modifying environments, and applying ergonomic principles to reflect the changing needs of the client, sociocultural context, and technological advances.	Assess, grade, and modify the way persons, groups, and populations perform occupations and activities by adapting processes, modifying environments, and applying ergonomic principles to reflect the changing needs of the client, sociocultural context, and technological advances.
<b>B.4.19. Consultative Process</b>				
B.4.19.	Demonstrate, evaluate, and plan the consultative process with persons, groups, programs, organizations, or communities in collaboration with inter- and intraprofessional colleagues.	Demonstrate, evaluate, and plan the consultative process with persons, groups, programs, organizations, or communities in collaboration with inter- and intraprofessional colleagues.	Engage in the consultative process with persons, groups, programs, organizations, or communities in collaboration with inter- and intraprofessional colleagues.	Engage in the consultative process with persons, groups, programs, organizations, or communities in collaboration with inter- and intraprofessional colleagues.
<b>B.4.20. Care Coordination, Case Management, and Transition Services</b>				
B.4.20.	Demonstrate, evaluate, and plan care coordination, case management, and transition services in traditional and emerging practice environments.	Demonstrate, evaluate, and plan care coordination, case management, and transition services in traditional and emerging practice environments.	Demonstrate, evaluate, and plan care coordination and case management. Understand and articulate transition services in traditional and emerging practice environments.	Understand and articulate care coordination, case management, and transition services in traditional and emerging practice environments.
<b>B.4.21. Teaching-Learning Process and Health Literacy</b>				
B.4.21.	Demonstrate, evaluate, and utilize the principles of the teaching-learning process using educational methods and health literacy education approaches: <ul style="list-style-type: none"> <li>To design activities and clinical training for persons, groups, and populations.</li> <li>To instruct and train the client, caregiver, family, significant others, and communities at the level of the audience.</li> </ul>	Demonstrate, evaluate, and utilize the principles of the teaching-learning process using educational methods and health literacy education approaches: <ul style="list-style-type: none"> <li>To design activities and clinical training for persons, groups, and populations.</li> <li>To instruct and train the client, caregiver, family, significant others, and communities at the level of the audience.</li> </ul>	Demonstrate the principles of the teaching-learning process using educational methods and health literacy education approaches: <ul style="list-style-type: none"> <li>To design activities and clinical training for persons, groups, and populations.</li> <li>To instruct and train the client, caregiver, family, significant others, and communities at the level of the audience.</li> </ul>	Demonstrate the principles of the teaching-learning process using educational methods and health literacy education approaches: <ul style="list-style-type: none"> <li>To design activities and clinical training for persons, groups, and populations.</li> <li>To instruct and train the client, caregiver, family, significant others, and communities at the level of the audience.</li> </ul>

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<b>B.4.22. Need for Continued or Modified Intervention</b>				
B.4.22.	Monitor and reassess, in collaboration with the client, caregiver, family, and significant others, the effect of occupational therapy intervention and the need for continued or modified intervention.	Monitor and reassess, in collaboration with the client, caregiver, family, and significant others, the effect of occupational therapy intervention and the need for continued or modified intervention.	Monitor and reassess, in collaboration with the client, caregiver, family, and significant others, the effect of occupational therapy intervention and the need for continued or modified intervention, and communicate the identified needs to the occupational therapist.	Monitor and reassess, in collaboration with the client, caregiver, family, and significant others, the effect of occupational therapy intervention and the need for continued or modified intervention, and communicate the identified needs to the occupational therapist.
<b>B.4.23. Effective Communication</b>				
B.4.23.	Identify occupational needs through effective communication with patients, families, communities, and members of the interprofessional team in a responsive and responsible manner that supports a team approach to the promotion of health and wellness.	Identify occupational needs through effective communication with patients, families, communities, and members of the interprofessional team in a responsive and responsible manner that supports a team approach to the promotion of health and wellness.	Identify occupational needs through effective communication with patients, families, communities, and members of the interprofessional team in a responsive and responsible manner that supports a team approach to the promotion of health and wellness.	Identify occupational needs through effective communication with patients, families, communities, and members of the interprofessional team in a responsive and responsible manner that supports a team approach to the promotion of health and wellness.
<b>B.4.24. Effective Intraprofessional Collaboration</b>				
B.4.24.	Demonstrate effective intraprofessional OT/OTA collaboration to: <ul style="list-style-type: none"> <li>Identify the role of the occupational therapist and occupational therapy assistant in the screening and evaluation process.</li> <li>Demonstrate and identify techniques in skills of supervision and collaboration with occupational therapy assistants.</li> </ul>	Demonstrate effective intraprofessional OT/OTA collaboration to: <ul style="list-style-type: none"> <li>Identify the role of the occupational therapist and occupational therapy assistant in the screening and evaluation process.</li> <li>Demonstrate and identify techniques in skills of supervision and collaboration with occupational therapy assistants.</li> </ul>	Demonstrate effective intraprofessional OT/OTA collaboration to explain the role of the occupational therapy assistant and occupational therapist in the screening and evaluation process.	Demonstrate effective intraprofessional OT/OTA collaboration to explain the role of the occupational therapy assistant and occupational therapist in the screening and evaluation process.
<b>B.4.25. Principles of Interprofessional Team Dynamics</b>				
B.4.25.	Demonstrate knowledge of the principles of interprofessional team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient- and population-centered care as well as population health programs and policies that are safe, timely, efficient, effective, and equitable.	Demonstrate knowledge of the principles of interprofessional team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient- and population-centered care as well as population health programs and policies that are safe, timely, efficient, effective, and equitable.	Demonstrate awareness of the principles of interprofessional team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient- and population-centered care as well as population health programs and policies that are safe, timely, efficient, effective, and equitable.	Demonstrate awareness of the principles of interprofessional team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient- and population-centered care as well as population health programs and policies that are safe, timely, efficient, effective, and equitable.
<b>B.4.26. Referral to Specialists</b>				
B.4.26.	Evaluate and discuss mechanisms for referring clients to specialists both internal and external to the profession, including community agencies.	Evaluate and discuss mechanisms for referring clients to specialists both internal and external to the profession, including community agencies.	Identify and communicate to the occupational therapist the need to refer to specialists both internal and external to the profession, including community agencies.	Identify and communicate to the occupational therapist the need to refer to specialists both internal and external to the profession, including community agencies.

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<b>B.4.27. Community and Primary Care Programs</b>				
B.4.27.	Evaluate access to community resources, and design community or primary care programs to support occupational performance for persons, groups, and populations.	Evaluate access to community resources, and design community or primary care programs to support occupational performance for persons, groups, and populations.	Identify and communicate to the occupational therapist the need to design community and primary care programs to support occupational performance for persons, groups, and populations.	Identify and communicate to the occupational therapist the need to design community and primary care programs to support occupational performance for persons, groups, and populations.
<b>B.4.28. Plan for Discharge</b>				
B.4.28.	Develop a plan for discharge from occupational therapy services in collaboration with the client and members of the interprofessional team by reviewing the needs of the client, caregiver, family, and significant others; available resources; and discharge environment.	Develop a plan for discharge from occupational therapy services in collaboration with the client and members of the interprofessional team by reviewing the needs of the client, caregiver, family, and significant others; available resources; and discharge environment.	Implement a discharge plan from occupational therapy services that was developed by the occupational therapist in collaboration with the client and members of the interprofessional team by reviewing the needs of the client, caregiver, family, and significant others; available resources; and discharge environment.	Implement a discharge plan from occupational therapy services that was developed by the occupational therapist in collaboration with the client and members of the interprofessional team by reviewing the needs of the client, caregiver, family, and significant others; available resources; and discharge environment.
<b>B.4.29. Reimbursement Systems and Documentation</b>				
B.4.29.	Demonstrate knowledge of various reimbursement systems and funding mechanisms (e.g., federal, state, third party, private payer), appeals mechanisms, treatment/diagnosis codes (e.g., CPT®, ICD, DSM® codes) and coding and documentation requirements that affect consumers and the practice of occupational therapy.  Documentation must effectively communicate the need and rationale for occupational therapy services.	Demonstrate knowledge of various reimbursement systems and funding mechanisms (e.g., federal, state, third party, private payer), appeals mechanisms, treatment/diagnosis codes (e.g., CPT®, ICD, DSM® codes) and coding and documentation requirements that affect consumers and the practice of occupational therapy.  Documentation must effectively communicate the need and rationale for occupational therapy services.	Demonstrate knowledge of various reimbursement systems and funding mechanisms (e.g., federal, state, third party, private payer), treatment/diagnosis codes (e.g., CPT®, ICD-, DSM® codes) and coding and documentation requirements that affect consumers and the practice of occupational therapy.  Documentation must effectively communicate the need and rationale for occupational therapy services.	Demonstrate knowledge of various reimbursement systems and funding mechanisms (e.g., federal, state, third party, private payer), treatment/diagnosis codes (e.g., CPT®, ICD, DSM® codes) and coding and documentation requirements that affect consumers and the practice of occupational therapy.  Documentation must effectively communicate the need and rationale for occupational therapy services.
B.5.0.	<b>CONTEXT OF SERVICE DELIVERY, LEADERSHIP, AND MANAGEMENT OF OCCUPATIONAL THERAPY SERVICES</b>  Context of service delivery includes knowledge and understanding of the various contexts, such as professional, social, cultural, political, economic, and ecological, in which occupational therapy services are provided.  Management and leadership skills of occupational therapy services include the application of principles of management and systems in the provision of occupational therapy services to persons, groups, populations, and organizations.  The program must facilitate development of the performance criteria listed below. The student will:			
<b>B.5.1. Factors, Policy Issues, and Social Systems</b>				
B.5.1.	Identify, analyze, and evaluate the contextual factors; current policy issues; and socioeconomic, political, geographic, and demographic factors on the delivery of occupational therapy services for persons, groups, and populations to	Identify, analyze, and evaluate the contextual factors; current policy issues; and socioeconomic, political, geographic, and demographic factors on the delivery of occupational therapy services for persons, groups, and populations to	Identify and explain the contextual factors; current policy issues; and socioeconomic, political, geographic, and demographic factors on the delivery of occupational therapy services for persons, groups, and populations to promote policy	Identify and explain the contextual factors; current policy issues; and socioeconomic, political, geographic, and demographic factors on the delivery of occupational therapy services for persons, groups, and populations and social systems as they



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	promote policy development and social systems as they relate to the practice of occupational therapy.	promote policy developments and social systems as they relate to the practice of occupational therapy.	developments and social systems as they relate to the practice of occupational therapy.	relate to the practice of occupational therapy.
<b>B.5.2. Advocacy</b>				
B.5.2.	Identify, analyze, and advocate for existing and future service delivery models and policies, and their potential effect on the practice of occupational therapy and opportunities to address societal needs.	Identify, analyze, and advocate for existing and future service delivery models and policies, and their potential effect on the practice of occupational therapy and opportunities to address societal needs.	Explain the role and responsibility of the practitioner to advocate for changes in service delivery policies, effect changes in the system, recognize opportunities in emerging practice areas, and advocate for opportunities to expand the occupational therapy assistant's role.	Explain the role and responsibility of the practitioner to advocate for changes in service delivery policies, effect changes in the system, recognize opportunities in emerging practice areas, and advocate for opportunities to expand the occupational therapy assistant's role.
<b>B.5.3. Business Aspects of Practice</b>				
B.5.3.	Demonstrate knowledge of and evaluate the business aspects of practice including, but not limited to, the development of business plans, financial management, program evaluation models, and strategic planning.	Demonstrate knowledge of and evaluate the business aspects of practice including, but not limited to, the development of business plans, financial management, program evaluation models, and strategic planning.	Explain the business aspects of practice including, but not limited to, the development of business plans, financial management, program evaluation models, and strategic planning.	Explain an understanding of the business aspects of practice including, but not limited to, financial management, billing, and coding.
<b>B.5.4. Systems and Structures That Create Legislation</b>				
B.5.4.	Identify and evaluate the systems and structures that create federal and state legislation and regulations and their implications and effects on persons, groups, and populations, as well as practice and policy.	Identify and evaluate the systems and structures that create federal and state legislation and regulations and their implications and effects on persons, groups, and populations, as well as practice.	Identify the systems and structures that create federal and state legislation and regulations, and their implications and effects on persons, groups, and populations, as well as practice.	Define the systems and structures that create federal and state legislation and regulations, and their implications and effects on persons, groups, and populations, as well as practice.
<b>B.5.5. Requirements for Credentialing and Licensure</b>				
B.5.5.	Provide care and programs that demonstrate knowledge of applicable national requirements for credentialing and requirements for licensure, certification, or registration consistent with federal and state laws.	Provide care and programs that demonstrate knowledge of applicable national requirements for credentialing and requirements for licensure, certification, or registration consistent with federal and state laws.	Provide care and programs that demonstrate knowledge of applicable national requirements for credentialing and requirements for licensure, certification, or registration consistent with federal and state laws.	Provide care and programs that demonstrate knowledge of applicable national requirements for credentialing and requirements for licensure, certification, or registration consistent with federal and state laws.
<b>B.5.6. Market the Delivery of Services</b>				
B.5.6.	Demonstrate leadership skills in the ability to plan, develop, organize, and market the delivery of services to include the determination of programmatic needs and service delivery options, and formulation and management of staffing for effective service provision.	Demonstrate the ability to plan, develop, organize, and market the delivery of services to include the determination of programmatic needs and service delivery options, and formulation and management of staffing for effective service provision.	Identify the need and demonstrate the ability to participate in the development, marketing, and management of service delivery options.	Identify the need and demonstrate the ability to participate in the development, marketing, and management of service delivery options.

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<b>B.5.7. Quality Management and Improvement</b>				
B.5.7.	Demonstrate leadership skills in the ability to design ongoing processes for quality management and improvement (e.g., outcome studies analysis and client engagement surveys) and develop program changes as needed to demonstrate quality of services and direct administrative changes.	Demonstrate the ability to design ongoing processes for quality management and improvement (e.g., outcome studies analysis and client engagement surveys) and develop program changes as needed to demonstrate quality of services and direct administrative changes.	Identify the need for and evaluate processes for quality management and improvement (e.g., outcome studies analysis and client engagement surveys) and implement program changes as needed to demonstrate quality of services.	Participate in the documentation of ongoing processes for quality management and improvement (e.g., outcome studies analysis and client engagement surveys) and implement program changes as needed to demonstrate quality of services.
<b>B.5.8. Supervision of Personnel</b>				
B.5.8.	Develop strategies for effective, competency-based legal and ethical supervision of occupational therapy and non-occupational therapy personnel.  Analyze staff development and professional abilities and competencies of supervised staff as they relate to job responsibilities.	Develop strategies for effective, competency-based legal and ethical supervision of occupational therapy and non-occupational therapy personnel.	Develop strategies for effective, competency-based legal and ethical supervision of occupational therapy assistants and non-occupational therapy personnel.	Define strategies for effective, competency-based legal and ethical supervision of occupational therapy assistants and non-occupational therapy personnel.
<b>B.6.0. SCHOLARSHIP</b>				
Promotion of science and scholarly endeavors will serve to describe and interpret the scope of the profession, build research capacity, establish new knowledge, and interpret and apply this knowledge to practice. The program must facilitate development of the performance criteria listed below. The student will be able to:				
<b>B.6.1. Scholarly Study</b>			<b>B.6.1. Professional Literature and Scholarly Activities</b>	
B.6.1.	<ul style="list-style-type: none"> <li>Critique quantitative and qualitative research in order to analyze and evaluate scholarly activities, which contribute to the development of a body of knowledge. This includes the: <ul style="list-style-type: none"> <li>Level of evidence</li> <li>Validity of research studies</li> <li>Strength of the methodology</li> <li>Relevance to the profession of occupational therapy</li> </ul> </li> <li>Locate, select, analyze, and evaluate scholarly literature to make evidence-based decisions.</li> <li>Design and implement a scholarly study that aligns with current research priorities and advances knowledge translation, professional practice, service delivery, or professional issues (e.g., Scholarship of Integration,</li> </ul>	<ul style="list-style-type: none"> <li>Critique quantitative and qualitative research in order to analyze and evaluate scholarly activities, which contribute to the development of a body of knowledge. This includes the: <ul style="list-style-type: none"> <li>Level of evidence</li> <li>Validity of research studies</li> <li>Strength of the methodology</li> <li>Relevance to the profession of occupational therapy.</li> </ul> </li> <li>Locate, select, analyze, and evaluate scholarly literature to make evidence-based decisions.</li> <li>Participate in scholarly activities that align with current research priorities and advances knowledge translation, professional practice, service delivery, or professional issues (e.g., Scholarship of Integration, Scholarship of</li> </ul>	<ul style="list-style-type: none"> <li>Locate and demonstrate understanding of professional literature, including the quality of the source of information, to make evidence-based practice decisions in collaboration with the occupational therapist.</li> <li>Explain how scholarly activities and literature contribute to the development of the profession.</li> </ul>	<ul style="list-style-type: none"> <li>Locate and demonstrate understanding of professional literature, including the quality of the source of information, to make evidence-based practice decisions in collaboration with the occupational therapist.</li> <li>Explain how scholarly activities and literature contribute to the development of the profession.</li> </ul>

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	Scholarship of Application, Scholarship of Teaching and Learning].	Application, Scholarship of Teaching and Learning].  This may include a literature review that requires analysis and synthesis of data. Systematic reviews that require analysis and synthesis of data meet the requirement for this Standard. A research project is not required for this Standard, and narrative reviews do not meet this Standard.		
<b>B.6.2. Quantitative and Qualitative Methods</b>				
B.6.2.	Select, apply, and interpret quantitative and qualitative methods for data analysis to include: <ul style="list-style-type: none"> <li>Basic descriptive, correlational, and inferential quantitative statistics.</li> <li>Analysis and synthesis of qualitative data.</li> </ul>	Demonstrate an understanding and use of quantitative and qualitative methods for data analysis to include: <ul style="list-style-type: none"> <li>Basic descriptive, correlational, and inferential quantitative statistics.</li> <li>Analysis and synthesis of qualitative data.</li> </ul>	Understand the use of quantitative and qualitative methods for data analysis that include: <ul style="list-style-type: none"> <li>Basic descriptive, correlational, and inferential quantitative statistics.</li> <li>Analysis and synthesis of qualitative data.</li> </ul>	Understand the difference between quantitative and qualitative research studies.
<b>B.6.3. Scholarly Reports</b>				
B.6.3.	Create scholarly reports appropriate for presentation or for publication in a peer-reviewed journal that support skills of clinical practice. The reports must be made available to professional or public audiences.	Demonstrate the skills necessary to write a scholarly report in a format for presentation or publication, which may be made available to professional or public audiences.	Demonstrate the skills to understand a scholarly report.	Demonstrate the skills to understand a scholarly report.
<b>B.6.4. Locating and Securing Grants</b>				
B.6.4.	Demonstrate an understanding of the process of locating and securing grants and how grants can serve as a fiscal resource for scholarly activities and program development. Create grant proposals to support scholarly activities and program development.	Demonstrate an understanding of the process of locating and securing grants and how grants can serve as a fiscal resource for scholarly activities and program development.	(No related Standard)	(No related Standard)
<b>B.6.5. Ethical Policies and Procedures for Research</b>				
B.6.5.	Demonstrate an understanding of how to design a scholarly proposal in regards to ethical policies and procedures necessary to conduct human-subject research, educational research, or research related to population health.	Demonstrate an understanding of the ethical policies and procedures for human-subject research, educational research, or research related to population health.	(No related Standard)	(No related Standard)



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<b>B.6.6. Preparation for Work in an Academic Setting</b>				
B.6.6.	Demonstrate an understanding and apply the principles of instructional design and teaching and learning in preparation for work in an academic setting.	Demonstrate an understanding and apply the principles of instructional design and teaching and learning in preparation for work in an academic setting.	Understand the principles of instructional design and teaching and learning in preparation for work in an academic setting.	Understand the principles of teaching and learning in preparation for work in an academic setting.
<b>B.7.0. PROFESSIONAL ETHICS, VALUES, AND RESPONSIBILITIES</b>				
Professional ethics, values, and responsibilities include an understanding and appreciation of ethics and values of the profession of occupational therapy. Professional behaviors include the ability to advocate for social responsibility and equitable services to support health equity and address social determinants of health; commit to engaging in lifelong learning; and evaluate the outcome of services, which include client engagement, judicious health care utilization, and population health. The program must facilitate development of the performance criteria listed below. The student will be able to:				
<b>B.7.1 Ethical Decision Making</b>				
B.7.1.	Demonstrate knowledge of the American Occupational Therapy Association (AOTA) <i>Occupational Therapy Code of Ethics</i> and AOTA <i>Standards of Practice</i> and use them as a guide for ethical decision making in professional interactions, client interventions, employment settings, and when confronted with personal and organizational ethical conflicts.	Demonstrate knowledge of the American Occupational Therapy Association (AOTA) <i>Occupational Therapy Code of Ethics</i> and AOTA <i>Standards of Practice</i> and use them as a guide for ethical decision making in professional interactions, client interventions, employment settings, and when confronted with personal and organizational ethical conflicts.	Demonstrate knowledge of the American Occupational Therapy Association (AOTA) <i>Occupational Therapy Code of Ethics</i> and AOTA <i>Standards of Practice</i> and use them as a guide for ethical decision making in professional interactions, client interventions, employment settings, and when confronted with personal and organizational ethical conflicts.	Demonstrate knowledge of the American Occupational Therapy Association (AOTA) <i>Occupational Therapy Code of Ethics</i> and AOTA <i>Standards of Practice</i> and use them as a guide for ethical decision making in professional interactions, client interventions, employment settings, and when confronted with personal and organizational ethical conflicts.
<b>B.7.2. Professional Engagement</b>				
B.7.2.	Demonstrate knowledge of how the role of a professional is enhanced by participating and engaging in local, national, and international leadership positions in organizations or agencies.	Demonstrate knowledge of how the role of a professional is enhanced by participating and engaging in local, national, and international leadership positions in organizations or agencies.	Demonstrate knowledge of how the role of a professional is enhanced by participating and engaging in local, national, and international leadership positions in organizations or agencies.	Demonstrate knowledge of how the role of a professional is enhanced by participating and engaging in local, national, and international leadership positions in organizations or agencies.
<b>B.7.3. Promote Occupational Therapy</b>				
B.7.3.	Promote occupational therapy by educating other professionals, service providers, consumers, third-party payers, regulatory bodies, and the public.	Promote occupational therapy by educating other professionals, service providers, consumers, third-party payers, regulatory bodies, and the public.	Promote occupational therapy by educating other professionals, service providers, consumers, third-party payers, regulatory bodies, and the public.	Promote occupational therapy by educating other professionals, service providers, consumers, third-party payers, regulatory bodies, and the public.
<b>B.7.4. Ongoing Professional Development</b>				
B.7.4.	Identify and develop strategies for ongoing professional development to ensure that practice is consistent with current and accepted standards.	Identify and develop strategies for ongoing professional development to ensure that practice is consistent with current and accepted standards.	Identify and develop strategies for ongoing professional development to ensure that practice is consistent with current and accepted standards.	Identify and develop strategies for ongoing professional development to ensure that practice is consistent with current and accepted standards.
<b>B.7.5. Personal and Professional Responsibilities</b>				
B.7.5.	Demonstrate knowledge of personal and professional responsibilities related to: • Liability issues under current models	Demonstrate knowledge of personal and professional responsibilities related to: • Liability issues under current models	Demonstrate knowledge of personal and professional responsibilities related to: • Liability issues under current models	Demonstrate knowledge of personal and professional responsibilities related to: • Liability issues under current models

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	<p>of service provision.</p> <ul style="list-style-type: none"> <li>Varied roles of the occupational therapist providing service on a contractual basis.</li> </ul>	<p>of service provision.</p> <ul style="list-style-type: none"> <li>Varied roles of the occupational therapist providing service on a contractual basis.</li> </ul>	<p>of service provision.</p> <ul style="list-style-type: none"> <li>Varied roles of the occupational therapy assistant providing service on a contractual basis.</li> </ul>	<p>of service provision.</p> <ul style="list-style-type: none"> <li>Varied roles of the occupational therapy assistant providing service on a contractual basis.</li> </ul>
<b>SECTION C: FIELDWORK EDUCATION</b>				
<b>C.1.0: FIELDWORK EDUCATION</b>				
<p>Fieldwork education is a crucial part of professional preparation and is best integrated as a component of the curriculum design. The fieldwork experience is designed to promote clinical reasoning and reflective practice, transmit the values and beliefs that enable ethical practice, and develop professionalism and competence in career responsibilities. Fieldwork experiences should be implemented and evaluated for their effectiveness by the educational institution. The experience should provide the student with the opportunity to carry out professional responsibilities under the supervision of qualified personnel serving as a role model. The academic fieldwork coordinator is responsible for the program's compliance with fieldwork education requirements. The academic fieldwork coordinator will:</p>				
<b>C.1.1. Fieldwork Program Reflects the Curriculum Design</b>				
C.1.1.	Ensure that the fieldwork program reflects the sequence and scope of content in the curriculum design, in collaboration with faculty, so that fieldwork experiences in traditional, nontraditional, and emerging settings strengthen the ties between didactic and fieldwork education.	Ensure that the fieldwork program reflects the sequence and scope of content in the curriculum design, in collaboration with faculty, so that fieldwork experiences in traditional, nontraditional, and emerging settings strengthen the ties between didactic and fieldwork education.	Ensure that the fieldwork program reflects the sequence and scope of content in the curriculum design, in collaboration with faculty, so that fieldwork experiences in traditional, nontraditional, and emerging settings strengthen the ties between didactic and fieldwork education.	Ensure that the fieldwork program reflects the sequence and scope of content in the curriculum design, in collaboration with faculty, so that fieldwork experiences in traditional, nontraditional, and emerging settings strengthen the ties between didactic and fieldwork education.
<b>C.1.2. Criteria and Process for Selecting Fieldwork Sites</b>				
C.1.2.	Document the criteria and process for selecting fieldwork sites, to include maintaining memoranda of understanding, complying with all site requirements, maintaining site objectives and site data, and communicating this information to students prior to the start of the fieldwork experience.	Document the criteria and process for selecting fieldwork sites, to include maintaining memoranda of understanding, complying with all site requirements, maintaining site objectives and site data, and communicating this information to students prior to the start of the fieldwork experience.	Document the criteria and process for selecting fieldwork sites, to include maintaining memoranda of understanding, complying with all site requirements, maintaining site objectives and site data, and communicating this information to students prior to the start of the fieldwork experience.	Document the criteria and process for selecting fieldwork sites, to include maintaining memoranda of understanding, complying with all site requirements, maintaining site objectives and site data, and communicating this information to students prior to the start of the fieldwork experience.
<b>C.1.3. Fieldwork Objectives</b>				
C.1.3.	<p>Document that academic and fieldwork educators agree on established fieldwork objectives prior to the start of the fieldwork experience, and communicate with the student and fieldwork educator about progress and performance throughout the fieldwork experience.</p> <p>Ensure that fieldwork objectives for all experiences include a psychosocial objective.</p>	<p>Document that academic and fieldwork educators agree on established fieldwork objectives prior to the start of the fieldwork experience, and communicate with the student and fieldwork educator about progress and performance throughout the fieldwork experience.</p> <p>Ensure that fieldwork objectives for all experiences include a psychosocial objective.</p>	<p>Document that academic and fieldwork educators agree on established fieldwork objectives prior to the start of the fieldwork experience, and communicate with the student and fieldwork educator about progress and performance throughout the fieldwork experience.</p> <p>Ensure that fieldwork objectives for all experiences include a psychosocial objective.</p>	<p>Document that academic and fieldwork educators agree on established fieldwork objectives prior to the start of the fieldwork experience, and communicate with the student and fieldwork educator about progress and performance throughout the fieldwork experience.</p> <p>Ensure that fieldwork objectives for all experiences include a psychosocial objective.</p>

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<b>C.1.4. Ratio of Fieldwork Educators to Students</b>				
C.1.4.	Ensure that the ratio of fieldwork educators to students enables proper supervision, and provides protection of consumers, opportunities for appropriate role modeling of occupational therapy practice, and the ability to provide frequent assessment of student progress in achieving stated fieldwork objectives.	Ensure that the ratio of fieldwork educators to students enables proper supervision, and provides protection of consumers, opportunities for appropriate role modeling of occupational therapy practice, and the ability to provide frequent assessment of student progress in achieving stated fieldwork objectives.	Ensure that the ratio of fieldwork educators to students enables proper supervision, and provides protection of consumers, opportunities for appropriate role modeling of occupational therapy practice, and the ability to provide frequent assessment of student progress in achieving stated fieldwork objectives.	Ensure that the ratio of fieldwork educators to students enables proper supervision, and provides protection of consumers, opportunities for appropriate role modeling of occupational therapy practice, and the ability to provide frequent assessment of student progress in achieving stated fieldwork objectives.
<b>C.1.5. Sufficient Fieldwork Agreements</b>				
C.1.5.	Ensure that fieldwork agreements are sufficient in scope and number to allow completion of graduation requirements in a timely manner, in accordance with the policy adopted by the program as required by Standard A.4.7.	Ensure that fieldwork agreements are sufficient in scope and number to allow completion of graduation requirements in a timely manner, in accordance with the policy adopted by the program as required by Standard A.4.7.	Ensure that fieldwork agreements are sufficient in scope and number to allow completion of graduation requirements in a timely manner, in accordance with the policy adopted by the program as required by Standard A.4.7.	Ensure that fieldwork agreements are sufficient in scope and number to allow completion of graduation requirements in a timely manner, in accordance with the policy adopted by the program as required by Standard A.4.7.
<b>C.1.6. Level I and II Fieldwork MOUs</b>				
C.1.6.	The program must have evidence of valid memoranda of understanding in effect and signed by both parties from the onset to conclusion of the Level I fieldwork and the Level II fieldwork if it involves an entity outside of the academic program. (Electronic memoranda of understanding and signatures are acceptable.) Responsibilities of the sponsoring institution(s) and each fieldwork site must be clearly documented in the memorandum of understanding.	The program must have evidence of valid memoranda of understanding in effect and signed by both parties from the onset to conclusion of the Level I fieldwork and the Level II fieldwork if it involves an entity outside of the academic program. (Electronic memoranda of understanding and signatures are acceptable.) Responsibilities of the sponsoring institution(s) and each fieldwork site must be clearly documented in the memorandum of understanding.	The program must have evidence of valid memoranda of understanding in effect and signed by both parties from the onset to conclusion of the Level I fieldwork and the Level II fieldwork if it involves an entity outside of the academic program. (Electronic memoranda of understanding and signatures are acceptable.) Responsibilities of the sponsoring institution(s) and each fieldwork site must be clearly documented in the memorandum of understanding.	The program must have evidence of valid memoranda of understanding in effect and signed by both parties from the onset to conclusion of the Level I fieldwork and the Level II fieldwork if it involves an entity outside of the academic program. (Electronic memoranda of understanding and signatures are acceptable.) Responsibilities of the sponsoring institution(s) and each fieldwork site must be clearly documented in the memorandum of understanding.
<p>IF A FIELD TRIP, OBSERVATION, OR SERVICE LEARNING ACTIVITY IS USED TO COUNT TOWARD PART OF A LEVEL I FIELDWORK, THEN A MEMORANDUM OF UNDERSTANDING IS REQUIRED. IF A FIELD TRIP, OBSERVATION, OR SERVICE LEARNING ACTIVITY IS NOT USED TO COUNT TOWARD PART OF THE LEVEL I FIELDWORK, THEN NO MEMORANDUM OF UNDERSTANDING IS REQUIRED.</p> <p>WHEN A MEMORANDUM OF UNDERSTANDING IS ESTABLISHED WITH A MULTISITE SERVICE PROVIDER (E.G., CONTRACT AGENCY, CORPORATE ENTITY), THE ACOTE STANDARDS DO NOT REQUIRE A SEPARATE MEMORANDUM OF UNDERSTANDING WITH EACH PRACTICE SITE.</p>				
<b>C.1.7. Fieldwork in Behavioral Health or Psychological and Social Factors</b>				
C.1.7.	At least one fieldwork experience (either Level I or Level II) must address practice in behavioral health, or psychological and social factors influencing engagement in occupation.	At least one fieldwork experience (either Level I or Level II) must address practice in behavioral health, or psychological and social factors influencing engagement in occupation.	At least one fieldwork experience (either Level I or Level II) must address practice in behavioral health, or psychological and social factors influencing engagement in occupation.	At least one fieldwork experience (either Level I or Level II) must address practice in behavioral health, or psychological and social factors influencing engagement in occupation.

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The goal of Level I fieldwork is to introduce students to fieldwork, apply knowledge to practice, and develop understanding of the needs of clients. The program will:				
<b>C.1.8. Qualified Level I Fieldwork Supervisors</b>				
C.1.8.	Ensure that personnel who supervise Level I fieldwork are informed of the curriculum and fieldwork program design and affirm their ability to support the fieldwork experience. This must occur prior to the onset of the Level I fieldwork. Examples include, but are not limited to, currently licensed or otherwise regulated occupational therapists and occupational therapy assistants, psychologists, physician assistants, teachers, social workers, physicians, speech-language pathologists, nurses, and physical therapists.	Ensure that personnel who supervise Level I fieldwork are informed of the curriculum and fieldwork program design and affirm their ability to support the fieldwork experience. This must occur prior to the onset of the Level I fieldwork. Examples include, but are not limited to, currently licensed or otherwise regulated occupational therapists and occupational therapy assistants, psychologists, physician assistants, teachers, social workers, physicians, speech-language pathologists, nurses, and physical therapists.	Ensure that personnel who supervise Level I fieldwork are informed of the curriculum and fieldwork program design and affirm their ability to support the fieldwork experience. This must occur prior to the onset of the Level I fieldwork. Examples include, but are not limited to, currently licensed or otherwise regulated occupational therapists and occupational therapy assistants, psychologists, physician assistants, teachers, social workers, physicians, speech-language pathologists, nurses, and physical therapists.	Ensure that personnel who supervise Level I fieldwork are informed of the curriculum and fieldwork program design and affirm their ability to support the fieldwork experience. This must occur prior to the onset of the Level I fieldwork. Examples include, but are not limited to, currently licensed or otherwise regulated occupational therapists and occupational therapy assistants, psychologists, physician assistants, teachers, social workers, physicians, speech-language pathologists, nurses, and physical therapists.
<b>C.1.9. Level I Fieldwork</b>				
C.1.9.	<p>Document that Level I fieldwork is provided to students and is not substituted for any part of the Level II fieldwork. Ensure that Level I fieldwork enriches didactic coursework through directed observation and participation in selected aspects of the occupational therapy process, and include mechanisms for formal evaluation of student performance.</p> <p>The program must have clearly documented student learning objectives expected of the Level I fieldwork.</p> <p>Level I fieldwork may be met through one or more of the following instructional methods:</p> <ul style="list-style-type: none"> <li>• Simulated environments</li> <li>• Standardized patients</li> <li>• Faculty practice</li> <li>• Faculty-led site visits</li> <li>• Supervision by a fieldwork educator in a practice environment</li> </ul> <p>All Level I fieldwork must be comparable in rigor.</p>	<p>Document that Level I fieldwork is provided to students and is not substituted for any part of the Level II fieldwork. Ensure that Level I fieldwork enriches didactic coursework through directed observation and participation in selected aspects of the occupational therapy process, and include mechanisms for formal evaluation of student performance.</p> <p>The program must have clearly documented student learning objectives expected of the Level I fieldwork.</p> <p>Level I fieldwork may be met through one or more of the following instructional methods:</p> <ul style="list-style-type: none"> <li>• Simulated environments</li> <li>• Standardized patients</li> <li>• Faculty practice</li> <li>• Faculty-led site visits</li> <li>• Supervision by a fieldwork educator in a practice environment</li> </ul> <p>All Level I fieldwork must be comparable in rigor.</p>	<p>Document that Level I fieldwork is provided to students and is not substituted for any part of the Level II fieldwork. Ensure that Level I fieldwork enriches didactic coursework through directed observation and participation in selected aspects of the occupational therapy process, and include mechanisms for formal evaluation of student performance.</p> <p>The program must have clearly documented student learning objectives expected of the Level I fieldwork.</p> <p>Level I fieldwork may be met through one or more of the following instructional methods:</p> <ul style="list-style-type: none"> <li>• Simulated environments</li> <li>• Standardized patients</li> <li>• Faculty practice</li> <li>• Faculty-led site visits</li> <li>• Supervision by a fieldwork educator in a practice environment</li> </ul> <p>All Level I fieldwork must be comparable in rigor.</p>	<p>Document that Level I fieldwork is provided to students and is not substituted for any part of the Level II fieldwork. Ensure that Level I fieldwork enriches didactic coursework through directed observation and participation in selected aspects of the occupational therapy process, and include mechanisms for formal evaluation of student performance.</p> <p>The program must have clearly documented student learning objectives expected of the Level I fieldwork.</p> <p>Level I fieldwork may be met through one or more of the following instructional methods:</p> <ul style="list-style-type: none"> <li>• Simulated environments</li> <li>• Standardized patients</li> <li>• Faculty practice</li> <li>• Faculty-led site visits</li> <li>• Supervision by a fieldwork educator in a practice environment</li> </ul> <p>All Level I fieldwork must be comparable in rigor.</p>



STANDARD NUMBER	ACCREDITATION STANDARDS FOR A DOCTORAL-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A MASTER'S-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPIST	ACCREDITATION STANDARDS FOR A BACCALAUREATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT	ACCREDITATION STANDARDS FOR AN ASSOCIATE-DEGREE-LEVEL EDUCATIONAL PROGRAM FOR THE OCCUPATIONAL THERAPY ASSISTANT
The goal of Level II fieldwork is to develop competent, entry-level, generalist occupational therapists. Level II fieldwork must be integral to the program's curriculum design and must include an in-depth experience in delivering occupational therapy services to clients, focusing on the application of purposeful and meaningful occupation and research, administration, and management of occupational therapy services. It is recommended that the student be exposed to a variety of clients across the lifespan and to a variety of settings. The program will:			The goal of Level II fieldwork is to develop competent, entry-level, generalist occupational therapy assistants. Level II fieldwork must be integral to the program's curriculum design and must include an in-depth experience in delivering occupational therapy services to clients, focusing on the application of purposeful and meaningful occupation. It is recommended that the student be exposed to a variety of clients across the lifespan and to a variety of settings. The program will:	
<b>C.1.10. Length of Level II Fieldwork</b>				
C.1.10.	Require a minimum of 24 weeks' full-time Level II fieldwork. This may be completed on a part-time basis, as defined by the fieldwork placement in accordance with the fieldwork placement's usual and customary personnel policies, as long as it is at least 50% of an FTE at that site.  The student can complete Level II fieldwork in a minimum of one setting if it is reflective of more than one practice area, or in a maximum of four different settings.	Require a minimum of 24 weeks' full-time Level II fieldwork. This may be completed on a part-time basis, as defined by the fieldwork placement in accordance with the fieldwork placement's usual and customary personnel policies, as long as it is at least 50% of an FTE at that site.  The student can complete Level II fieldwork in a minimum of one setting if it is reflective of more than one practice area, or in a maximum of four different settings.	Require a minimum of 16 weeks' full-time Level II fieldwork. This may be completed on a part-time basis, as defined by the fieldwork placement in accordance with the fieldwork placement's usual and customary personnel policies, as long as it is at least 50% of an FTE at that site.  The student can complete Level II fieldwork in a minimum of one setting if it is reflective of more than one practice area, or in a maximum of three different settings.	Require a minimum of 16 weeks' full-time Level II fieldwork. This may be completed on a part-time basis, as defined by the fieldwork placement in accordance with the fieldwork placement's usual and customary personnel policies, as long as it is at least 50% of an FTE at that site.  The student can complete Level II fieldwork in a minimum of one setting if it is reflective of more than one practice area, or in a maximum of three different settings.
<b>C.1.11. Qualified Level II Fieldwork Supervisors</b>				
C.1.11.	Document and verify that the student is supervised by a currently licensed or otherwise regulated occupational therapist who has a minimum of 1 year full-time (or its equivalent) of practice experience as a licensed or otherwise regulated occupational therapist prior to the onset of the Level II fieldwork.  Ensure that the student supervisor is adequately prepared to serve as a fieldwork educator prior to the Level II fieldwork. The supervising therapist may be engaged by the fieldwork site or by the educational program.	Document and verify that the student is supervised by a currently licensed or otherwise regulated occupational therapist who has a minimum of 1 year full-time (or its equivalent) of practice experience as a licensed or otherwise regulated occupational therapist prior to the onset of the Level II fieldwork.  Ensure that the student supervisor is adequately prepared to serve as a fieldwork educator prior to the Level II fieldwork. The supervising therapist may be engaged by the fieldwork site or by the educational program.	Document and verify that the student is supervised by a currently licensed or otherwise regulated occupational therapist or occupational therapy assistant (under the supervision of an occupational therapist) who has a minimum of 1 year full-time (or its equivalent) of practice experience as a licensed or otherwise regulated occupational therapist or occupational therapy assistant prior to the onset of the Level II fieldwork.  Ensure that the student supervisor is adequately prepared to serve as a fieldwork educator prior to the Level II fieldwork. The supervising therapist may be engaged by the fieldwork site or by the educational program.	Document and verify that the student is supervised by a currently licensed or otherwise regulated occupational therapist or occupational therapy assistant (under the supervision of an occupational therapist) who has a minimum of 1 year full-time (or its equivalent) of practice experience as a licensed or otherwise regulated occupational therapist or occupational therapy assistant prior to the onset of the Level II fieldwork.  Ensure that the student supervisor is adequately prepared to serve as a fieldwork educator prior to the Level II fieldwork. The supervising therapist may be engaged by the fieldwork site or by the educational program.
<b>C.1.12. Evaluating the Effectiveness of Supervision</b>				
C.1.12.	Document a mechanism for evaluating the effectiveness of supervision (e.g., student evaluation of fieldwork) and for providing resources for enhancing supervision	Document a mechanism for evaluating the effectiveness of supervision (e.g., student evaluation of fieldwork) and for providing resources for enhancing supervision	Document a mechanism for evaluating the effectiveness of supervision (e.g., student evaluation of fieldwork) and for providing resources for enhancing supervision	Document a mechanism for evaluating the effectiveness of supervision (e.g., student evaluation of fieldwork) and for providing resources for enhancing supervision

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	(e.g., materials on supervisory skills, continuing education opportunities, articles on theory and practice).	(e.g., materials on supervisory skills, continuing education opportunities, articles on theory and practice).	(e.g., materials on supervisory skills, continuing education opportunities, articles on theory and practice).	(e.g., materials on supervisory skills, continuing education opportunities, articles on theory and practice).
<b>C.1.13. Level II Fieldwork Supervision</b>				
C.1.13.	Ensure that Level II fieldwork supervision is direct and then decreases to less direct supervision as appropriate for the setting, the severity of the client's condition, and the ability of the student to support progression toward entry-level competence.	Ensure that Level II fieldwork supervision is direct and then decreases to less direct supervision as appropriate for the setting, the severity of the client's condition, and the ability of the student to support progression toward entry-level competence.	Ensure that Level II fieldwork supervision is direct and then decreases to less direct supervision as appropriate for the setting, the severity of the client's condition, and the ability of the student to support progression toward entry-level competence.	Ensure that Level II fieldwork supervision is direct and then decreases to less direct supervision as appropriate for the setting, the severity of the client's condition, and the ability of the student to support progression toward entry-level competence.
<b>C.1.14. Fieldwork Supervision Where No OT Services Exist</b>				
C.1.14.	Document and verify that supervision provided in a setting where no occupational therapy services exist includes a documented plan for provision of occupational therapy services and supervision by a currently licensed or otherwise regulated occupational therapist with at least 3 years' full-time or its equivalent of professional experience prior to the Level II fieldwork. Supervision must include a minimum of 8 hours of direct supervision each week of the fieldwork experience. An occupational therapy supervisor must be available, via a variety of contact measures, to the student during all working hours. An on-site supervisor designee of another profession must be assigned while the occupational therapy supervisor is off site.	Document and verify that supervision provided in a setting where no occupational therapy services exist includes a documented plan for provision of occupational therapy services and supervision by a currently licensed or otherwise regulated occupational therapist with at least 3 years' full-time or its equivalent of professional experience prior to the Level II fieldwork. Supervision must include a minimum of 8 hours of direct supervision each week of the fieldwork experience. An occupational therapy supervisor must be available, via a variety of contact measures, to the student during all working hours. An on-site supervisor designee of another profession must be assigned while the occupational therapy supervisor is off site.	Document and verify that supervision provided in a setting where no occupational therapy services exist includes a documented plan for provision of occupational therapy assistant services and supervision by a currently licensed or otherwise regulated occupational therapist or occupational therapy assistant (under the direction of an occupational therapist) with at least 3 years' full-time or its equivalent of professional experience prior to the Level II fieldwork. Supervision must include a minimum of 8 hours of direct supervision each week of the fieldwork experience. An occupational therapy supervisor must be available, via a variety of contact measures, to the student during all working hours. An on-site supervisor designee of another profession must be assigned while the occupational therapy supervisor is off site.	Document and verify that supervision provided in a setting where no occupational therapy services exist includes a documented plan for provision of occupational therapy assistant services and supervision by a currently licensed or otherwise regulated occupational therapist or occupational therapy assistant (under the direction of an occupational therapist) with at least 3 years' full-time or its equivalent of professional experience prior to the Level II fieldwork. Supervision must include a minimum of 8 hours of direct supervision each week of the fieldwork experience. An occupational therapy supervisor must be available, via a variety of contact measures, to the student during all working hours. An on-site supervisor designee of another profession must be assigned while the occupational therapy supervisor is off site.
<b>C.1.15. Evaluation of Student Performance on Level II Fieldwork</b>				
C.1.15.	Document mechanisms for requiring formal evaluation of student performance on Level II fieldwork (e.g., the AOTA Fieldwork Performance Evaluation for the Occupational Therapy Student or equivalent).	Document mechanisms for requiring formal evaluation of student performance on Level II fieldwork (e.g., the AOTA Fieldwork Performance Evaluation for the Occupational Therapy Student or equivalent).	Document mechanisms for requiring formal evaluation of student performance on Level II fieldwork (e.g., the AOTA Fieldwork Performance Evaluation for the Occupational Therapy Assistant Student or equivalent).	Document mechanisms for requiring formal evaluation of student performance on Level II fieldwork (e.g., the AOTA Fieldwork Performance Evaluation for the Occupational Therapy Assistant Student or equivalent).

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<b>C.1.16. Fieldwork Supervision Outside the U.S.</b>				
C.1.16.	Document and verify that students attending Level II fieldwork outside the United States are supervised by an occupational therapist who graduated from a program approved by the World Federation of Occupational Therapists and has at least 1 year of experience in practice prior to the onset of Level II fieldwork.	Document and verify that students attending Level II fieldwork outside the United States are supervised by an occupational therapist who graduated from a program approved by the World Federation of Occupational Therapists and has at least 1 year of experience in practice prior to the onset of Level II fieldwork.	Document and verify that students attending Level II fieldwork outside the United States are supervised by an occupational therapist who graduated from a program approved by the World Federation of Occupational Therapists and has at least 1 year of experience in practice prior to the onset of Level II fieldwork.	Document and verify that students attending Level II fieldwork outside the United States are supervised by an occupational therapist who graduated from a program approved by the World Federation of Occupational Therapists and has at least 1 year of experience in practice prior to the onset of Level II fieldwork.
<b>D.1.0. DOCTORAL CAPSTONE</b> The doctoral capstone shall be an integral part of the program's curriculum design. The goal of the doctoral capstone is to provide an in-depth exposure to one or more of the following: clinical practice skills, research skills, administration, leadership, program and policy development, advocacy, education, and theory development.  The doctoral capstone consists of two parts: <ul style="list-style-type: none"> <li>• Capstone project</li> <li>• Capstone experience</li> </ul> The student will complete an individual capstone project to demonstrate synthesis and application of knowledge gained.  The student will complete an individual 14-week capstone experience that must be started after completion of all coursework and Level II fieldwork, and completion of preparatory activities defined in D.1.3.  The doctoral capstone coordinator will:			<b>D.1.0. BACCALAUREATE PROJECT</b> The goal of the baccalaureate project is to provide an in-depth experience in one or more of the following: clinical practice skills, administration, leadership, advocacy, and education.  The individual or group project allows student(s) to demonstrate application of knowledge gained. The baccalaureate project shall be an integral part of the program's curriculum design.  The program will:	
<b>D.1.1. Doctoral Capstone Reflects Curriculum Design</b>			<b>D.1.1. Baccalaureate Project Reflects Curriculum Design</b>	
D.1.1.	Ensure that the doctoral capstone reflects the sequence and scope of content in the curriculum design so the doctoral capstone can allow for development of in-depth knowledge in the designated area of interest.	(No related Standard)	Ensure that the baccalaureate project reflects the sequence and scope of content in the curriculum design so the baccalaureate project can allow for development of in-depth knowledge in the designated area of interest.	(No related Standard)



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<b>D.1.2. Design of Doctoral Capstone</b>			<b>D.1.2. Design of Baccalaureate Project</b>	
D.1.2.	Ensure that the doctoral capstone is designed through collaboration of the faculty and student, and provided in setting(s) consistent with the program's curriculum design, including individualized specific objectives and plans for supervision.	(No related Standard)	Ensure that the baccalaureate project is designed through collaboration of the faculty and the student(s), including individualized specific objectives.	(No related Standard)
<b>D.1.3. Preparation for Doctoral Capstone Project</b>				
D.1.3.	Ensure that preparation for the capstone project includes a literature review, needs assessment, goals/objectives, and an evaluation plan. Preparation should align with the curriculum design and sequence and is completed prior to the commencement of the 14-week doctoral capstone experience.	(No related Standard)		(No related Standard)
<b>D.1.4. MOUs for Doctoral Capstone Experience</b>				
D.1.4.	Ensure that there is a valid memorandum of understanding for the doctoral capstone experience, that, at a minimum, includes individualized specific objectives, plans for supervision or mentoring, and responsibilities of all parties. The memorandum of understanding must be signed by both parties.	(No related Standard)		(No related Standard)
<b>D.1.5. Length of Doctoral Capstone Experience</b>				
D.1.5.	Require that the length of the doctoral capstone experience be a minimum of 14 weeks (560 hours). This may be completed on a part-time basis and must be consistent with the individualized specific objectives and capstone project. No more than 20% of the 560 hours can be completed off site from the mentored practice setting(s), to ensure a concentrated experience in the designated area of interest. Time spent off site may include independent study activities such as research and writing. Prior fieldwork or work experience may not be substituted for this doctoral capstone experience.	(No related Standard)		(No related Standard)

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<b><i>D.1.6. Mentor for Doctoral Capstone</i></b>				
D.1.6.	Document and verify that the student is mentored by an individual with expertise consistent with the student's area of focus prior to the onset of the doctoral capstone experience. The mentor does not have to be an occupational therapist.	(No related Standard)		(No related Standard)
<b><i>D.1.7. Evaluation of Doctoral Capstone Experiences</i></b>			<b><i>D.1.7. Evaluation of Baccalaureate Project</i></b>	
D.1.7.	Document a formal evaluation mechanism for objective assessment of the student's performance during and at the completion of the doctoral capstone experience.	(No related Standard)	Document a formal evaluation mechanism for objective assessment of the student's performance during and at the completion of the baccalaureate project.	(No related Standard)
<b><i>D.1.8. Doctoral Capstone Project</i></b>			<b><i>D.1.8. Baccalaureate Project</i></b>	
D.1.8.	Ensure completion and dissemination of an individual doctoral capstone project that relates to the doctoral capstone experience and demonstrates synthesis of in-depth knowledge in the focused area of study.	(No related Standard)	Ensure completion and presentation of a report of the individual or group project demonstrating in-depth knowledge in the focused area of study.	(No related Standard)

## GLOSSARY

Accreditation Standards for a Doctoral-Degree-Level Educational Program for the Occupational Therapist,  
Master's-Degree-Level Educational Program for the Occupational Therapist, Baccalaureate-Degree-Level Educational Program for the Occupational Therapy Assistant, and  
Associate-Degree-Level Educational Program for the Occupational Therapy Assistant

*Definitions given below are for the purposes of this document.*

**ABILITY TO BENEFIT:** A phrase that refers to a student who does not have a high school diploma or its recognized equivalent, but is eligible to receive funds under the Title IV Higher Education Act programs after taking an independently administered examination and achieving a score, specified by the Secretary of the U.S. Department of Education (USDE), indicating that the student has the ability to benefit from the education being offered.

**ACADEMIC CALENDAR:** The official institutional document that lists registration dates, semester/quarter stop and start dates, holidays, graduation dates, and other pertinent events. Generally, the academic year is divided into two major semesters, each approximately 14 to 16 weeks long. A smaller number of institutions have quarters rather than semesters. Quarters are approximately 10 weeks long; there are three major quarters and the summer session.

**ACTIVITIES:** Actions designed and selected to support the development of performance skills and performance patterns to enhance occupational engagement (American Occupational Therapy Association [AOTA], 2014).

**ADVOCACY:** Efforts directed toward promoting occupational justice and empowering clients to seek and obtain resources to fully participate in their daily life occupations. Efforts undertaken by the practitioner are considered advocacy, and those undertaken by the client are considered self-advocacy and can be promoted and supported by the practitioner (AOTA, 2014).

**AFFILIATE:** An entity that formally cooperates with a sponsoring institution in implementing the occupational therapy educational program.

**AREAS OF OCCUPATION:** Activities in which people engage: activities of daily living, instrumental activities of daily living, rest and sleep, education, work, play, leisure, and social participation.

**ASSESSMENTS:** "Specific tools or instruments that are used during the evaluation process" (AOTA, 2010, p. S107).

**ASSIST:** To aid, help, or hold an auxiliary position.

**BACCALAUREATE PROJECT:** An in-depth experience in one or more of the following areas: clinical practice skills, administration, leadership, advocacy, and education.

**BEHAVIORAL HEALTH:** Refers to mental/emotional well-being and/or actions that affect wellness. Behavioral health problems include substance use disorders; alcohol and drug addiction; and serious psychological distress, suicide, and mental disorders (Substance Abuse and Mental Health Administration, 2014).

**BODY FUNCTIONS:** "Physiological functions of body systems (including psychological functions)" (World Health Organization [WHO], 2001).

**BODY STRUCTURES:** "Anatomical parts of the body, such as organs, limbs, and their components" that support body functions (WHO, 2001).

**BUSINESS PLANS (DEVELOPMENT OF):** The process of putting together a plan for a new endeavor that looks at the product, the marketing plan, the competition, and the personnel in an objective and critical manner.

**CAPSTONE COORDINATOR:** Faculty member who is specifically responsible for the program's compliance with the capstone requirements of Standards Section D.1.0 and is assigned to the occupational therapy educational program as a full-time core faculty member as defined by ACOTE.

**CAPSTONE EXPERIENCE:** A 14-week full-time in-depth exposure in a concentrated area that may include on-site and off-site activities that meets developed goals/objectives of the doctoral capstone.

**CAPSTONE PROJECT:** A project that is completed by a doctoral-level student that demonstrates the student's ability to relate theory to practice and to synthesize in-depth knowledge in a practice area that relates to the capstone experience.

**CARE COORDINATION:** The process that links clients with appropriate services and resources.

**CASE MANAGEMENT:** A system to ensure that individuals receive appropriate health care services.

**CLIENT:** Person or persons (including those involved in the care of a client), group (collective of individuals [e.g., families, workers, students, or community members]), or population (collective of groups or individuals living in a similar locale [e.g., city, state, or country] or sharing the same or like concerns) (AOTA, 2014).

**CLIENT-CENTERED SERVICE DELIVERY:** An orientation that honors the desires and priorities of clients in designing and implementing interventions.

**CLIENT FACTORS:** Specific capacities, characteristics, or beliefs that reside within the person and that influence performance in occupations. Client factors include values, beliefs, and spirituality; body functions; and body structures (AOTA, 2014).

**CLINICAL REASONING:** Complex multifaceted cognitive process used by practitioners to plan, direct, perform, and reflect on intervention.

**COLLABORATE:** To work together with a mutual sharing of thoughts and ideas.

**COMPETENT:** To have the requisite abilities/qualities and capacity to function in a professional environment.

**CONSORTIUM:** Two or more higher education institutions having a formal agreement to share resources for the operation of an educational program.

**CONSUMER:** The direct and/or indirect recipient of educational and/or practitioner services offered.

**CONTEXT/CONTEXTUAL FACTORS AND ENVIRONMENT:**

**CONTEXT:** The variety of interrelated conditions within and surrounding the client that influence performance. Contexts include cultural, personal, temporal, and virtual aspects.

**ENVIRONMENT:** The external physical and social environment that surrounds the client and in which the client's daily life occupations occur.

**CONTEXT OF SERVICE DELIVERY:** The knowledge and understanding of the various contexts in which occupational therapy services are provided.

**COOPERATIVE PROGRAM:** Two administrative entities having a cooperative agreement to offer a single program. At least one of the entities must hold degree-granting authority as required by the ACOTE Standards.

**CRITERION-REFERENCED:** Tests that compare the performance of an individual to that of another group, known as the *norm group*.

**CULTURAL CONTEXT:** Customs, beliefs, activity patterns, behavioral standards, and expectations accepted by the society of which a client is a member. The cultural context influences the client's identity and activity choices (AOTA, 2014).

**CURRICULUM DESIGN:** An overarching set of assumptions that explains how the curriculum is planned, implemented, and evaluated. Typically, a curriculum design includes educational goals and curriculum threads and provides a clear rationale for the selection of content, the determination of scope of content, and the sequence of the content. A curriculum design is expected to be consistent with the mission and philosophy of the sponsoring institution and the program.

**CURRICULUM THREADS:** Curriculum threads, or *themes*, are identified by the program as areas of study and development that follow a path through the curriculum and represent the unique qualities of the program, as demonstrated by the program's graduates. Curriculum threads are typically based on the profession's and program's vision, mission, and philosophy (e.g., occupational needs of society, critical thinking/professional reasoning, diversity/globalization).

**DIAGNOSIS:** The process of analyzing the cause or nature of a condition, situation, or problem. Diagnosis as stated in Standard B.4.0, refers to the occupational therapist's ability to analyze a problem associated with occupational performance and participation.

**DISTANCE EDUCATION:** Education that uses one or more of the technologies listed below to deliver instruction to students who are separated from the instructor and to support regular and substantive interaction between the students and the instructor, either synchronously or asynchronously. The technologies may include:

- the Internet
- one-way and two-way transmissions through open broadcast, closed circuit, cable, microwave, broadband lines, fiber optics, satellite, or wireless communications devices
- audio conferencing
- video cassettes, DVDs, and CD-ROMs, if the cassettes, DVDs, or CD-ROMs are used in a course.

**DISTANCE EDUCATION DELIVERY MODEL:** There is one curriculum with some (or all) of the students receiving the didactic portion of the program taught via distance education from the primary campus. The didactic portion of the program is delivered to all students (irrespective of whether it is delivered in person or by distance education) by the same instructors. Students may receive the experiential and lab components at either the primary campus or at other locations.

**DOCTORAL CAPSTONE:** An in-depth exposure to a concentrated area, which is an integral part of the program's curriculum design. This in-depth exposure may be in one or more of the following areas: clinical practice skills, research skills, scholarship, administration, leadership, program and policy development, advocacy, education, and theory development. The doctoral capstone consists of two parts: the capstone experience and the capstone project.

**DOCTORAL DEGREE—RESEARCH/SCHOLARSHIP:** A PhD or other doctor's degree that requires advanced work beyond the master's level, including the preparation and defense of a dissertation based on original research, or the planning and execution of an original project demonstrating substantial artistic or scholarly achievement. Some examples of this type of degree include EdD, DMA, DBA, DS., DA, and DM, and others, as designated by the awarding institution (Integrated Postsecondary Education Data System [IPEDS], 2016).

**DRIVER REHABILITATION:** Specialized evaluation and training to develop mastery of specific skills and techniques to effectively drive a motor vehicle independently and in accordance with state department of motor vehicles regulations.

**DYSPHAGIA:** Dysfunction in any stage or process of eating. It includes any difficulty in the passage of food, liquid, or medicine, during any stage of swallowing that impairs the client's ability to swallow independently or safely (AOTA, 2017).

**EATING:** "...keeping and manipulating food or fluid in the mouth and swallowing it;" (AOTA, 2014, p. S19).

**FEEDING:** "...setting up, arranging, and bringing food [or fluid] from the plate or cup to the mouth; sometimes called self-feeding" (AOTA, 2014, p. S19).

**SWALLOWING:** "...moving food from the mouth to the stomach (AOTA, 2014, p. S19).

**ENTRY-LEVEL OCCUPATIONAL THERAPIST:** The outcome of the occupational therapy educational and certification process; an individual prepared to begin generalist practice as an occupational therapist with less than 1 year of experience.

**ENTRY-LEVEL OCCUPATIONAL THERAPY ASSISTANT:** The outcome of the occupational therapy educational and certification process; an individual prepared to begin generalist practice as an occupational therapy assistant with less than 1 year of experience.

**EVALUATION:** "The process of obtaining and interpreting data necessary for intervention. This includes planning for and documenting the evaluation process and results" (AOTA, 2010, p. S107).

**EQUITY:** The absence of avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, or geographically (WHO, 2017a).

**EXPERIENTIAL LEARNING:** Method of educating through first-hand experience. Skills, knowledge, and experience are acquired outside of the traditional academic classroom setting, and may include service learning projects.

**FACULTY:**

**FACULTY, CORE:** Faculty members employed in the occupational therapy educational program whose job responsibilities, at a minimum, include curriculum design, teaching, and student advisement, regardless of the position title.

**FACULTY, ADJUNCT:** Persons who are responsible for teaching or instruction on a part-time basis. These faculty are considered nonsalaried, non-tenure-track faculty members who are paid for each class they teach.

**FACULTY-LED SITE VISITS:** Faculty-facilitated experiences in which students will be able to participate in, observe, and/or study clinical practice first-hand.

**FACULTY PRACTICE:** Service provision by a faculty member(s) to persons, groups, and/or populations.

**FIELDWORK COORDINATOR:** Faculty member who is responsible for the development, implementation, management, and evaluation of fieldwork education.

**FIELDWORK EDUCATOR:** An individual, typically a clinician, who works collaboratively with the program and is informed of the curriculum and fieldwork program design. This individual supports the fieldwork experience, serves as a role model, and holds the requisite qualifications to provide the student with the opportunity to carry out professional responsibilities during the experiential portion of their education.

**FRAME OF REFERENCE:** A set of interrelated, internally consistent concepts, definitions, postulates, and principles that provide a systematic description of a practitioner's interaction with clients. A frame of reference is intended to link theory to practice.

**FULL-TIME EQUIVALENT (FTE):** An equivalent position for a full-time faculty member (as defined by the institution). A full-time equivalent can be made up of no more than 3 individuals.

**GRADUATION RATE:** The total number of students who graduated from a program within 150% of the published length of the program, divided by the number of students on the roster who started in the program.

**HABITS:** "Acquired tendencies to respond and perform in certain consistent ways in familiar environments or situations; specific, automatic behaviors performed repeatedly, relatively automatically, and with little variation" (Boyt Schell et al., 2014, p. 1234).

**HEALTH:** "State of complete physical, mental, and social wellbeing, and not merely the absence of disease or infirmity" (WHO, 2006).

**HEALTH INEQUITIES:** Health inequities involve more than inequality with respect to health determinants, and access to the resources needed to improve and maintain health or health outcomes. They also entail a failure to avoid or overcome inequalities that infringe on fairness and human rights norms (WHO, 2017a).

**HEALTH LITERACY:** Degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions. (National Network of Libraries of Medicine, 2011).

**HEALTH MANAGEMENT AND MAINTENANCE:** Developing, managing, and maintaining routines for health and wellness promotion, such as physical fitness, nutrition, decreased health risk behaviors, and medication routines (AOTA, 2014).

**HEALTH PROMOTION:** The process of enabling people to increase control over, and to improve, their health. It moves beyond a focus on individual behaviour towards a wide range of social and environmental interventions (WHO, 2017a).

**HEALTH/PUBLIC POLICY:** The basic policy or set of policies forming the foundation of public laws; health policy refers to specific policies as they relate to health and health care.

**INDIVIDUAL VS. POPULATION VS. INSTITUTION:** (Values, customs, beliefs, policy, power/decision making) Being aware of the different needs of perspectives: of one person, as opposed to a specific population, as opposed to the needs and concerns of a society or organization. Each has different values, needs, beliefs, and concerns. Each also may have different degrees of power and ability to make decisions that will affect others.

**INSTRUCTIONAL DESIGN:** Assessment of the learning materials and methods that are aligned with the curriculum and convey content to meet the needs of the student.

**INTERPROFESSIONAL COLLABORATIVE PRACTICE:** "Multiple health workers from different professional backgrounds provide comprehensive services by working with patients, families, carers, and communities to deliver the highest quality of care" (WHO, 2010).

**INTERPROFESSIONAL EDUCATION:** When two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes (WHO, 2010). "An educational activity that occurs between two or more professionals within the same discipline, with a focus on participants to work together, act jointly, and cooperate" (Jung et al., 2010, p. 235).

**INTRAPROFESSIONAL COLLABORATIVE PRACTICE:** The relationship between occupational therapists and occupational therapy assistants that is based on mutual respect, effective communication, and professionalism to promote the highest quality of care in service delivery (Dillon, 2001).

**MEMORANDUM OF UNDERSTANDING (MOU):** A document outlining the terms and details of an agreement between parties, including each party's requirements and responsibilities. A fieldwork memorandum of understanding may be signed by any individual who is authorized by the institution to do so on its behalf.

**MENTAL HEALTH:** A state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community (WHO, 2014).

**MENTORING:** A relationship between two people in which one person (the mentor) is dedicated to the personal and professional growth of the other (the mentee). A mentor has more experience and knowledge than the mentee.

**MISSION:** A statement that explains the unique nature of a program or institution and how it helps fulfill or advance the goals of the sponsoring institution, including religious missions.

**MODEL OF PRACTICE:** The set of theories and philosophies that defines the views, beliefs, assumptions, values, and domain of concern of a particular profession or discipline. Models of practice delimit the boundaries of a profession.

**OCCUPATION:** Daily life activities in which people engage. Occupations occur in context and are influenced by the interplay among client factors, performance skills, and performance patterns. Occupations occur over time; have purpose, meaning, and perceived utility to the client; and can be observed by others (e.g., preparing a meal) or be known only to the person involved (e.g., learning through reading a textbook). Occupations can involve the execution of multiple activities for completion and can result in various outcomes (AOTA, 2014).

**OCCUPATIONAL PROFILE:** Summary of the client's occupational history and experiences, patterns of daily living, interests, values, and needs (AOTA, 2014).

**OCCUPATIONAL THERAPY:** The art and science of applying occupation as a means to effect positive, measurable change in the health status and functional outcomes of a client by a qualified occupational therapist and/or occupational therapy assistant (as appropriate).

**OCCUPATIONAL THERAPY PRACTITIONER:** An individual who is initially credentialed as an occupational therapist or an occupational therapy assistant.

**OCCUPATION-BASED INTERVENTION:** A type of occupational therapy intervention—a client-centered intervention in which the occupational therapy practitioner and client collaboratively select and design activities that have specific relevance or meaning to the client and support the client's interests, needs, health, and participation in daily life.

**ORGANIZATION:** Entity composed of individuals with a common purpose or enterprise, such as a business, industry, or agency (AOTA, 2014).

**OUTCOMES:** The effect the process has had on the people targeted by it. These might include, for example, changes in their self-perceived health status or changes in the distribution of health determinants, or factors that are known to affect their health, well-being, and quality of life (WHO, 2017b).

**PARTICIPATION:** Active engagement in occupations.

**PERFORMANCE PATTERNS:** Habits, routines, roles, and rituals used in the process of engaging in occupations or activities; these patterns can support or hinder occupational performance (AOTA, 2014).

**PERFORMANCE SKILLS:** Goal-directed actions that are observable as small units of engagement in daily life occupations. They are learned and developed over time and are situated in specific contexts and environments (Fisher & Griswold, 2014).

**PHILOSOPHY:** The underlying belief and value structure for a program that is consistent with the sponsoring institution and that permeates the curriculum and the teaching learning process.

**PHYSICAL AGENT MODALITIES:** Procedures and interventions that are systematically applied to modify specific client factors when neurological, musculoskeletal, or skin conditions are present that may be limiting occupational performance (AOTA, 2012).

**DEEP THERMAL AGENTS:** Modalities such as therapeutic ultrasound, phonophoresis, short-wave diathermy, and other commercially available technologies.



**ELECTROTHERAPEUTIC AGENTS:** Modalities that use electricity and the electromagnetic spectrum to facilitate tissue healing, improve muscle strength and endurance, decrease edema, modulate pain, decrease the inflammatory process, and modify the healing process. Electrotherapeutic agents include but are not limited to neuro-muscular electrical stimulation (NMES), functional electrical stimulation (FES), transcutaneous electrical nerve stimulation (TENS), high-voltage galvanic stimulation for tissue and wound repair (ESTR), high-voltage pulsed current (HVPC), direct current (DC), iontophoresis, and other commercially available technologies (Bracciano, 2008).

**MECHANICAL DEVICES:** Modalities such as vasopneumatic devices and continuous passive motion.

**SUPERFICIAL THERMAL AGENTS:** Modalities such as hydrotherapy, whirlpool, cryotherapy (cold packs, ice), fluidotherapy, hot packs, paraffin, water, infrared, and other commercially available superficial heating and cooling technologies.

(Skills, knowledge, and competencies for entry-level practice are derived from AOTA practice documents. For institutions in states where regulations restrict the use of physical agent modalities, it is recommended that students be exposed to the modalities offered in practice to allow students' knowledge and expertise with the modalities in preparation for the NBCOT examination and for practice outside of the state in which the educational institution resides.)

**POPULATION-BASED INTERVENTIONS:** Interventions focused on promoting the overall health status of the community by preventing disease, injury, disability, and premature death. A population-based health intervention can include assessment of the community's needs, health promotion and public education, disease and disability prevention, monitoring of services, and media interventions. Most interventions are tailored to reach a subset of a population, although some may be targeted toward the population at large. Populations and subsets may be defined by geography, culture, race and ethnicity, socioeconomic status, age, or other characteristics. Many of these characteristics relate to the health of the described population (Keller et al., 2002).

**POPULATION HEALTH:** "The health outcomes of a group of individuals including the distribution of such outcomes within the group" (Kindig & Stoddart, 2003, p. 381). "Population health outcomes are the product of multiple determinants of health, including medical care, public health, genetics, behaviors, social factors, and environmental factors" (Institute of Medicine [IOM], 2015, para. 4).

**POPULATIONS:** Collective of groups of individuals living in a similar locale (e.g., city, state, country) or sharing the same or like characteristics or concerns (AOTA, 2014).

**POST-PROFESSIONAL DOCTORATE:** "The highest award a student can earn for graduate study" (IPEDS, 2016) and that is conferred upon completion of a program providing the knowledge and skills beyond the basic entry level for persons who are already occupational therapy practitioners (AOTA, 2016).

**PREPARATORY METHODS AND TASKS:** Methods and tasks that prepare the client for occupational performance, used either as part of a treatment session in preparation for or concurrently with occupations and activities or as a home-based engagement to support daily occupational performance. Often preparatory methods are interventions that are done to clients without their active participation and involve modalities, devices, or techniques (AOTA, 2014).

**PREVENTION:** Education or health promotion efforts designed to identify, reduce, or prevent the onset and reduce the incidence of unhealthy conditions, risk factors, diseases, or injuries (AOTA, 2013a).

**PRIMARY CARE PROGRAMS:** The provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community (IOM, 1994; Patient Protection and Affordable Care Act, 2010)

**PROGRAM DIRECTOR** (associate-degree-level and baccalaureate-degree-level occupational therapy assistant): An initially certified occupational therapist or occupational therapy assistant who is licensed or credentialed according to regulations in the state or jurisdiction in which the program is located. The program director must hold a minimum of a master's degree.

**PROGRAM DIRECTOR** (master's-degree-level and doctoral-degree level occupational therapist): An initially certified occupational therapist who is licensed or credentialed according to regulations in the state or jurisdiction in which the program is located. The program director must hold a doctoral degree.

**PROGRAM EVALUATION:** A continuing system for routinely and systematically analyzing data to determine the extent to which the program is meeting its stated goals and objectives.

**PSYCHOSOCIAL FACTORS:** "Psychosocial as pertaining to the influence of social factors on an individual's mind or behaviour, and to the interrelation of behavioural and social factors" (Martikainen et al., 2002, p. 1091).

**RECOGNIZED REGIONAL OR NATIONAL ACCREDITING AUTHORITY:** Regional and national accrediting agencies recognized by the USDE and/or the Council for Higher Education Accreditation (CHEA) to accredit postsecondary educational programs/institutions. The purpose of recognition is to ensure that the accrediting agencies are reliable authorities for evaluating quality education or training programs in the institutions they accredit.

**Regional accrediting bodies recognized by USDE:**

- Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges (ACCJC/WASC)
- Accrediting Commission for Senior Colleges and Universities, Western Association of Schools and Colleges (ACSCU/WASC)
- Commission on Institutions of Higher Education, New England Association of Schools and Colleges (CIHE/NEASC)
- Higher Learning Commission, North Central Association of Colleges and Schools (HLC)
- Middle States Commission on Higher Education, Middle States Association of Colleges and Schools (MSCHE)
- Northwest Commission on Colleges and Universities (NWCCU)
- The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)

**National accrediting bodies recognized by USDE:**

- Accrediting Bureau of Health Education Schools (ABHES)
- Accrediting Commission of Career Schools and Colleges (ACCSC)
- Accrediting Council for Continuing Education and Training (ACCET)
- Council on Occupational Education (COE)
- Distance Education Accrediting Commission (DEAC)
- New York State Board of Regents

**REFLECTIVE PRACTICE:** Thoughtful consideration of one's experiences and knowledge when applying such knowledge to practice. Reflective practice includes being coached by professionals.

**RELEASE TIME:** Period when a person is freed from regular duties, especially teaching, to allow time for other tasks or activities.

**RETENTION RATE:** A measure of the rate at which students persist in their educational program, calculated as the percentage of students on the roster after the add period, from the beginning of the previous academic year who are again enrolled at, or graduated prior to, the beginning of the subsequent academic year.

**SCHOLARSHIP:** "A systematic investigation...designed to develop or to contribute to generalizable knowledge" (Public Welfare: Protection of Human Subjects, 45 CFR § 46). Scholarship is made public, subject to review, and part of the discipline or professional knowledge base (Glassick et al., 1997). It allows others to build on it and further advance the field (AOTA, 2009).

**SCHOLARSHIP AGENDA:** Captures scholarship in the areas of teaching, research, and/or service. It engages faculty in academically relevant works that simultaneously meet campus mission and goals, meet the needs of the program, and are reflected in the curriculum design.

**SCHOLARSHIP OF DISCOVERY:** Engagement in activity that leads to the development of knowledge for its own sake. The Scholarship of Discovery encompasses original research that contributes to expanding the knowledge base of a discipline (Boyer, 1990).

**SCHOLARSHIP OF INTEGRATION:** Investigations making creative connections both within and across disciplines to integrate, synthesize, interpret, and create new perspectives and theories (Boyer, 1990).

**SCHOLARSHIP OF APPLICATION:** Practitioners apply the knowledge generated by Scholarship of Discovery or Integration to address real problems at all levels of society (Boyer, 1990). In occupational therapy, an example would be the application of theoretical knowledge to practice interventions or to teaching in the classroom.

**SCHOLARSHIP OF TEACHING AND LEARNING:** "Involves the systematic study of teaching and/or learning and the public sharing and review of such work through presentations, publications, and performances" (McKinney, 2007, p. 10).

**SENIOR COLLEGE:** A college that holds degree-granting authority that includes baccalaureate-degree-level education.

**SIMULATED ENVIRONMENTS:** A setting that provides an experience similar to a real-world setting in order to allow clients to practice specific occupations (e.g., driving simulation center, bathroom or kitchen centers in a rehabilitation unit, work hardening units or centers).

**SKILL:** The ability to use one's knowledge effectively and readily in execution or performance.

**SOCIAL DETERMINANTS OF HEALTH:** Conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies, and political systems (WHO, 2017c).

**SPONSORING INSTITUTION:** The identified legal entity that assumes total responsibility for meeting the minimal standards for ACOTE accreditation.

**STANDARDIZED PATIENT:** An individual who has been trained to portray in a consistent, standardized manner, a patient/client with occupational needs.

**STRATEGIC PLAN:** A comprehensive plan that articulates the program's future vision and guides the program development (e.g., faculty recruitment and professional growth, changes in the curriculum design, priorities in academic resources, procurement of fieldwork sites). A program's strategic plan must include, but need not be limited to:

- Evidence that the plan is based on program evaluation and an analysis of external and internal environments
- Long-term goals that address the vision and mission of both the institution and program, as well as specific needs of the program
- Specific measurable action steps with expected timelines by which the program will reach its long-term goals
- Person(s) responsible for action steps
- Evidence of periodic updating of action steps and long-term goals as they are met or as circumstances change.

**SUPERVISE:** To direct and inspect the performance of workers or work.

**SUPERVISION, DIRECT:** Two-way communication that occurs in real time and offers both audio and visual capabilities to ensure opportunities for timely feedback.

**SUPERVISOR:** One who ensures that tasks assigned to others are performed correctly and efficiently.

**THEORY:** A set of interrelated concepts used to describe, explain, or predict phenomena.

**TELEHEALTH:** The application of evaluative, consultative, preventative, and therapeutic services delivered through telecommunication and information technologies. Occupational therapy services provided by means of a telehealth service delivery model can be synchronous; that is, delivered through interactive technologies in real time, or asynchronous, using store-and-forward technologies. Occupational therapy practitioners can use telehealth as a mechanism to provide services at a location that is physically distant from the client, thereby allowing for services to occur where the client lives, works, and plays, if that is needed or desired (AOTA, 2013b).

**TRANSFER OF CREDIT:** A term used in higher education to award a student credit for courses earned in another institution prior to admission to the occupational therapy or occupational therapy assistant program.

**VIRTUAL ENVIRONMENTS:** An environment in which communication occurs by means of airwaves or computers in the absence of physical contact. The virtual context includes simulated, real time, or near time environments such as chat rooms, email, video conferencing, or radio transmissions; remote monitoring via wireless sensors; or computer-based data collection.

**WELLNESS:** Perception of and responsibility for psychological and physical well-being as these contribute to overall satisfaction with one's life situation (Boyt Schell et al., 2014, p. 1243).

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Appendix D



UNIVERSITY OF  
**SOUTHERN MAINE**  
Lewiston-Auburn College

## Curriculum Committee

### New or Revised Program Proposal

#### I. Proposal from the

Proposal for a ☒ New Program Curriculum  
☐ Revised Program Curriculum  
 Indicate amount of change:  
☐ Minor revision  
☐ Extensive revision

Proposal for a ☒ Major  
☐ Minor  
☐ Concentration  
☐ Certificate

New/revised program curriculum title: **Post Professional Doctor of Occupational Therapy**

Attach an overview of the new or revised program curriculum (1-3 pages). In this attachment:

1) Explain what the proposed new program or change to an existing program entails (description, background, listing of course names and numbers). If proposal is for revision of an existing program, append copy of current USM catalog description of curriculum. Whether it is new or revised programming, be sure to also append text for program exactly as you wish to see it included in next USM catalog.

**This proposal is to offer a post-professional Doctor of Occupational Therapy degree option for students in the Master of Occupational Therapy program to continue their education to the terminal degree point of the profession. The profession of occupational therapy has been debating for several years the appropriate entry degree for the occupational therapist. In 2014, the profession recommended transitioning to an entry level OTD. At that time, many programs began or continued planning for the OTD.**

**Given the ability to currently enter the profession at both a master's or doctoral degree, programs are required to consider how they will position themselves within the profession and how they will meet the expectations of students at both a master's degree and a clinical doctorate. The University of Southern Maine will transition to the mandatory doctorate as required by accreditation but this will happen over the next several years. We have current and past master's prepared students who are seeking the terminal degree in OT at this time.**

#### CATALOG DESCRIPTION REVISION:

~~USM's Lewiston-Auburn College offers a low residency post-professional, entry-level Master's Doctorate degree in Occupational Therapy for people who hold a baccalaureate or master's degree in a discipline other than occupational therapy. The Master Doctor of Occupational Therapy program is transitioning from an accredited Master degree in Occupational Therapy to seek accreditation for the doctoral degree by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA).~~



Occupational Therapy (OT) is a health and human services profession that recognizes humans as occupational beings. People define who they are by what they do, or by the occupations in which they engage. Occupational therapists use meaningful occupation or activities as intervention to help people of all ages maximize wellness and perform the skills they need to participate as fully in society as possible. OTs intervene with people who are experiencing varying degrees of activity impairment as a result of developmental, physical, psychological, cognitive, or environmental dysfunction. ~~As an OT, you will assist people in developing, compensating for, or regaining the skills necessary for participation in meaningful life roles and skills of self-care, work, and leisure.~~

~~Graduate~~ Doctorate post professional ~~entry-level~~ occupational therapy education builds upon the previous occupational therapy education and professional experience of the student by providing a sequential course of professional study that stresses active, independent inquiry, critical thinking, strong communication skills (oral, nonverbal, written, and electronic), problem solving, clinical reasoning, and professional behaviors. ~~Realizing that consumers may receive occupational therapy services in a wide variety of settings, students are exposed to practice in hospitals, other health institutions, schools, community agencies and centers, and other facilities where potential clients may be served.~~

2) Justify the proposed new program or program change (objectives and outcomes).

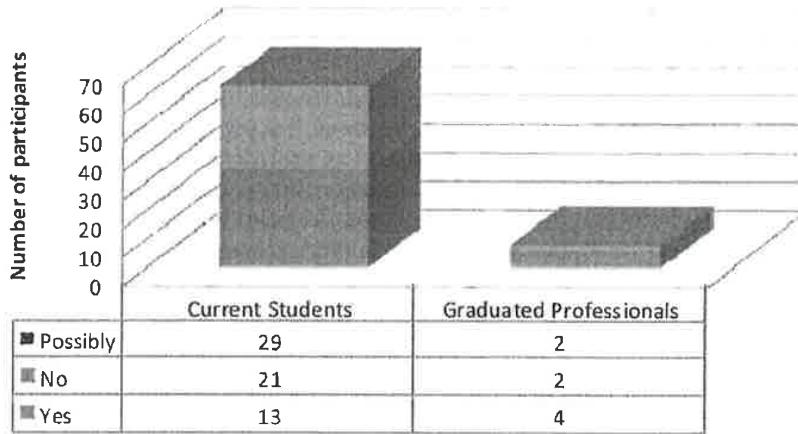
The post professional occupational therapy doctoral program will educate students who are already entering or have entered the profession of occupational therapy. These students will get advanced training beyond their current degree in areas in alignment with the current accreditation doctoral standards while also allowing students to expand their knowledge in a current area of clinical practice.

#### OTD Survey

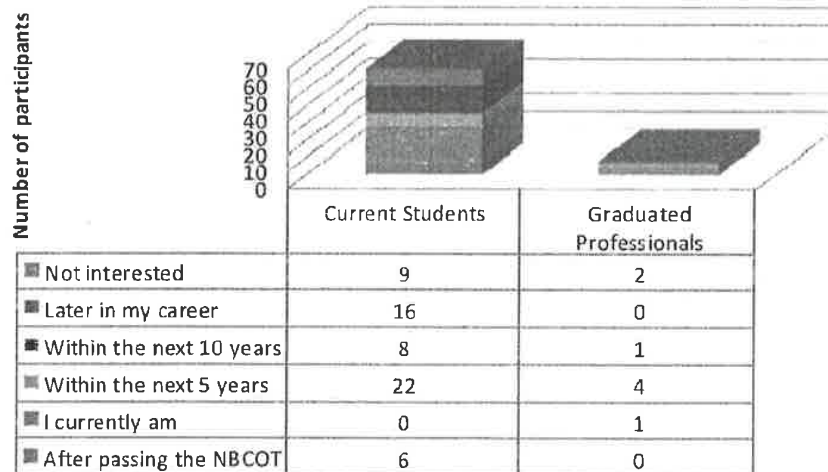
In a 2017 USM survey of the students currently enrolled in the program as well as clinicians in the community, the reality of obtaining a post professional degree to maintain the credentials of future entry level practitioners is a strong consideration for many.

Survey data was collected from 63 current graduate students and 8 graduated professionals. Of the graduate students, 24 were in their first year, 20 in their second and 18 in their third. Of the graduated professionals 6 graduated from the University of Southern Maine and 2 graduated elsewhere. Results of each question are below.

### Are you interested in attending a post profession OTD program?

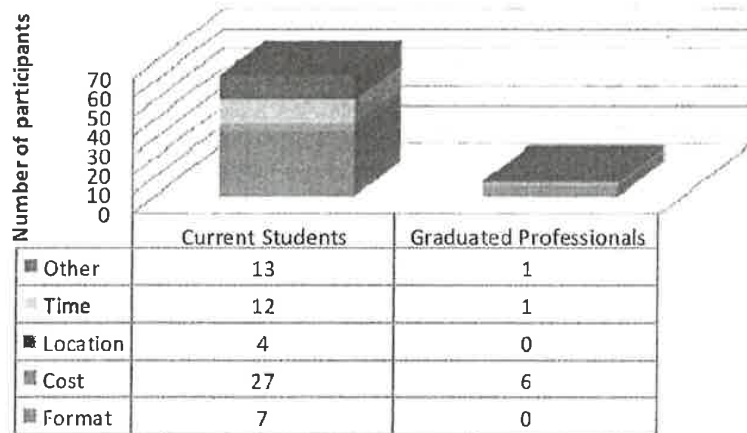


### When would you consider attending an OTD program?

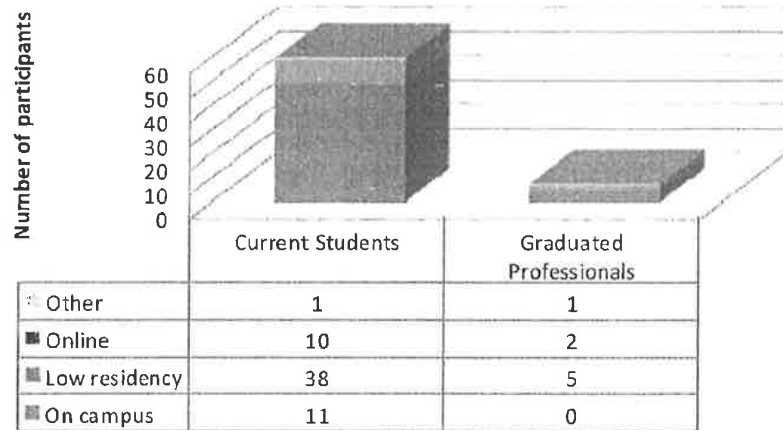


3)

### What are the key factors influencing your likelihood to enter an OTD program?



### If you want to attend an OTD program, what format would you prefer?



3) Does the proposed new program or program change affect offerings in your own or other programs? If so, how?

**This program will utilize planned courses within the entry level OTD program.**

4) What are the resource implications of the proposed new program or program change (i.e., a cost/benefit analysis -- personnel, equipment, technology, other support needed vs. additional revenue, marketing opportunities, etc. generated)?

**The program currently has the equipment, technology and support to offer the doctorate level post professional degree. The program will require the addition of one faculty member to teach within this program and act as the program coordinator for this degree in addition to the search planned for 2019-2020 academic year for an assistant professor position. The program is working closely with the Associate Dean and Provost to plan for transition of the faculty to the assistant professor level to support the doctoral research and coursework.**

**MOT faculty qualified to teach in the program at present:**

- Dr. Tammy Bickmore – Program Director and Assistant Professor
- Dr. Mary Anderson – Lecturer
- Dr. Susan Noyes – Assistant Professor
- Dr. Bernadette Kroon – Lecturer
- \*Sarah Grinder – Lecturer, currently in enrolled in a PhD program in Occupational Therapy at Nova Southeastern University (anticipated graduation date: 2020)

## II. Approval Signatures

Program Liaison/Coordinator/Director: \_\_\_\_\_

Date: \_\_\_\_\_

Curriculum Review Committee: \_\_\_\_\_

*Blake Whitaker*

Date: *9/12/18*

Faculty Chair (if new program or extensive revision): \_\_\_\_\_

Date: \_\_\_\_\_

Dean of LAC: \_\_\_\_\_

Date: \_\_\_\_\_

### Instructions:

- It is recommended that you submit this form and accompanying documentation by December 15 if the program is to be entered into the next *USM Graduate Catalog*.
- Faculty must consult with other programs about potential conflicts *before* submitting this form.
- Programs should review time and resource commitments with the Dean of LAC *before* submitting this form.

### To Submit This Form:

- Once the proposal has received program approval, submit it as an attachment in an email to the chair of the Curriculum Committee.
- Send *one* hard copy of the completed form, with the signature of the program coordinator indicating approval of the proposal to the chair of the Curriculum Committee.

\* Please note that new degree programs and graduate level certificate programs will require additional approval external to LAC. New majors within existing degree programs do not require external review. (rev. 5/7/08)



UNIVERSITY OF  
**SOUTHERN MAINE**  
Lewiston-Auburn College

## Curriculum Committee

### New or Revised Program Proposal

#### I. Proposal from the

Proposal for a ☐ New Program Curriculum  
☒ Revised Program Curriculum  
 Indicate amount of change:  
☐ Minor revision  
☒ Extensive revision

Proposal for a ☒ Major  
☐ Minor  
☐ Concentration  
☐ Certificate

New/revised program curriculum title: **Entry Level Doctor of Occupational Therapy**

Attach an overview of the new or revised program curriculum (1-3 pages). In this attachment:

1) Explain what the proposed new program or change to an existing program entails (description, background, listing of course names and numbers). If proposal is for revision of an existing program, append copy of current USM catalog description of curriculum. Whether it is new or revised programming, be sure to also append text for program exactly as you wish to see it included in next USM catalog.

**The University of Southern Maine at Lewiston Auburn College presently has the only Occupational Therapy program at the Registered Occupational Therapist (OTR) level in the University of Maine System. The program is accredited and is under the direct order as follows:**

*The Accreditation Council for Occupational Therapy Education (ACOTE®), which has independent authority to set standards for the profession's education programs, took action at its recent August 3–6, 2017, meeting to mandate to move the entry-level degree for the occupational therapist to the doctoral level by 2027.*

#### CATALOG DESCRIPTION REVISION:

USM's Lewiston-Auburn College offers a professional, entry-level ~~Master's~~ Doctorate degree in Occupational Therapy for people who hold a baccalaureate degree in a discipline other than occupational therapy. The ~~Master~~ Doctor of Occupational Therapy program is transitioning from an accredited Master degree in Occupational Therapy to seek accreditation for the doctoral degree by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA).

Occupational Therapy (OT) is a health and human services profession that recognizes humans as occupational beings. People define who they are by what they do, or by the occupations in which they engage. Occupational therapists use meaningful occupation or activities as intervention to help people of all ages maximize wellness and perform the skills they need to participate as fully in society as possible. OTs intervene with people who are experiencing varying degrees of activity impairment as a result of developmental, physical, psychological, cognitive, or environmental dysfunction. As an OT, you will assist people in developing, compensating for, or regaining the skills necessary for participation in meaningful life roles and skills of self-care, work, and leisure.

**Graduate Doctorate** entry-level occupational therapy education builds upon the previous education and experience of the student by providing a sequential course of professional study that stresses active, independent inquiry, critical thinking, strong communication skills (oral, nonverbal, written, and electronic), problem solving, clinical reasoning, and professional behaviors. Realizing that consumers may receive occupational therapy services in a wide variety of settings, students are exposed to practice in hospitals, other health institutions, schools, community agencies and centers, and other facilities where potential clients may be served.

2) Justify the proposed new program or program change (objectives and outcomes).

**In order for the University of Maine system to continue to offer occupational therapy education, the current Master of Occupational Therapy program will need to transition to a Doctor of Occupational Therapy program.**

3) Does the proposed new program or program change affect offerings in your own or other programs? If so, how?

**This proposal will affect the Master of Occupational Therapy program and the accelerated pathways options from Natural and Applied Sciences, Social and Behavioral Sciences, and Health Sciences.**

4) What are the resource implications of the proposed new program or program change (i.e., a cost/benefit analysis -- personnel, equipment, technology, other support needed vs. additional revenue, marketing opportunities, etc. generated)?

**The program currently has the equipment, technology and support for transition to the doctorate level. The program will require the addition of one faculty member to act as the capstone coordinator for this degree in addition to the search planned for 2019-2020 academic year for an assistant professor position. The program is working closely with the Associate Dean and Provost to plan for transition of the faculty to the assistant professor level to support the doctoral research and coursework.**

**MOT faculty qualified to teach in the program at present:**

- Dr. Tammy Bickmore – Program Director and Assistant Professor
- Dr. Mary Anderson – Lecturer
- Dr. Susan Noyes – Assistant Professor
- Dr. Bernadette Kroon – Lecturer
- \*Sarah Grinder – Lecturer, currently in enrolled in a PhD program in Occupational Therapy at Nova Southeastern University (anticipated graduation date: 2020)

## II. Approval Signatures

Program Liaison/Coordinator/Director: \_\_\_\_\_

Date: \_\_\_\_\_

Curriculum Review Committee: \_\_\_\_\_

*Blake Whitaker*

Date: *9/12/18*

Faculty Chair (if new program or extensive revision): \_\_\_\_\_

Date: \_\_\_\_\_

Dean of LAC: \_\_\_\_\_

Date: \_\_\_\_\_

**Instructions:**

- It is recommended that you submit this form and accompanying documentation by December 15 if the program is to be entered into the next *USM Graduate Catalog*.
- Faculty must consult with other programs about potential conflicts *before* submitting this form.
- Programs should review time and resource commitments with the Dean of LAC *before* submitting this form.

**To Submit This Form:**

- Once the proposal has received program approval, submit it as an attachment in an email to the chair of the Curriculum Committee.
- Send *one* hard copy of the completed form, with the signature of the program coordinator indicating approval of the proposal to the chair of the Curriculum Committee.

\* Please note that new degree programs and graduate level certificate programs will require additional approval external to LAC. New majors within existing degree programs do not require external review. (rev. 5/7/08)



Revised 4-12-16

## **LAC Curriculum Committee Proposal for New Course Review**

### **Instructions:**

Please use this template for new courses to be added to *USM's Graduate Catalog*. The form is available in the Curriculum Committee subfolder on the LAC common drive/fac. The space associated with each item in the form will expand to fit whatever text you enter.

Submit this form first to your course's "home" degree program(s). Once this course has received program(s) approval, transmit the form and the course syllabus or blueprint as attachments in an email to the current Curriculum Committee chair, plus the original hard copy completed with the signature of the program liaison(s) indicating program(s) approval of the course. Faculty should consult with other programs about potential conflicts or collaborations, and review time and resource commitments with the Dean *before* submitting this form to the committee.

The Curriculum Committee will notify our regular faculty of new courses under review, posting course proposals on LAC's common drive as they are reviewed by the committee. In the absence of receipt of any concerns about individual courses, procedures for approval by the full faculty will be streamlined, with the Curriculum Committee requesting from the faculty as a whole periodic endorsements of panels of new courses. It will be the Committee's responsibility to keep faculty (and student services) informed of the addition of new courses.

For the course to be entered into the *USM Graduate Catalog*, it's recommended that this form and accompanying documentation be presented to the associated degree program(s) in time for program consideration prior to March 1, the USM catalog updates being due at the end of April. Submission by March 1 should provide sufficient time for the associated program(s) catalog editor(s) to complete the revision process in time for review by the LAC catalog manager and inclusion in the next year's catalog. A course number should not be reassigned within a program if it has been used within the last 10 years (confirm with Registrar's Office). It will be the program director's responsibility to request permission of the Provost to add new courses to the curriculum using the "[Curriculum Process and Signatory Sheet](#)"; also available on the Provost's web page under "Resources", "Faculty Resources", "Curriculum Process".

**A sample syllabus or course blueprint including key student learning outcomes should be included with this form.**

Revised 4-12-16

**A. Course Details** (as they will appear in the *USM Undergraduate Catalog*)

1. LAC program prefix (prefixes if cross-listed) & Number:

**OTH TBD**

2. Course Title:

**Occupational Science**

3. Catalog Description:

**COURSE DESCRIPTION:**

**This course will explore the history, theoretical foundations, and research methodologies of occupational science, as well as the application of occupational science for occupational therapy practice.**

4. Prerequisites: **All previous MOT required courses**

5. Credit Hours: **Three**

**B. Curricular Contributions**

1. Contribution(s) of the course to program curriculum, including relationship to other program courses (include consideration of potential overlap and/or synergy with other program courses):

**ACOTE STANDARDS:**

**B.2.2: Explain the meaning and dynamics of occupation and activity, including the interaction of areas of occupation, performance skills, performance patterns, activity demands, context(s) and environments, and client factors.**

**B.4.10: Recommend and provide direct interventions and procedures to persons, groups, and populations to enhance safety, health and wellness, and performance in occupations.**

**This must include the ability to select and deliver occupation and activities, preparatory methods and tasks (including therapeutic exercise), education and training, and advocacy.**

**B.6.1:**

- **Critique quantitative and qualitative research in order to analyze and evaluate scholarly activities, which contribute to the development of a body of knowledge. This includes the:**

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- Level of evidence
  - Validity of research studies
  - Strength of the methodology
  - Relevance to the profession of occupational therapy
- Locate, select, analyze, and evaluate scholarly literature to make evidence-based decisions.
- Evaluate, design, and implement a scholarly study that aligns with current research priorities and advances knowledge translation, professional practice, service delivery, or professional issues (e.g., Scholarship of Integration, Scholarship of Application, Scholarship of Teaching and Learning).

2. Contribution(s) of this course to other LAC curricula and USM Core (include consideration of potential overlap and/or synergy with other LAC courses):

**Not Applicable to Core. This course is specific to occupational therapy.**

3. Specify how this course contributes to LAC's interdisciplinary mission: **N/A**
4. Specify how this course contributes to USM's commitment to diversity: **N/A**

#### **C. Course History and Resources**

1. Taught previously at LAC as X99, or by LAC faculty at other institutions? **NO**

- a. If yes, when, most recently?

- b. Before then? (up to two earlier sections)

2. Who will teach this course (full-time or other, team taught, rotate, names)?

**Sarah Grinder will lead this course**

3. Projected cycle for course (every semester, annual, biennial, etc.)?

**Summer third year. Course will be taught annually**

4. How will course fit into the faculty's existing responsibilities?

**Sarah Grinder will teach as part of summer teaching.**

5. Targeted audience and projected enrollment for the course?

**Required MOT course – 40 per year**

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a. Any marketing needs or opportunities? **NO**

6. Resources necessary to support course (nonteaching personnel, space, library, equipment, etc ...):

**No additional resources required**

7. If this course will be offered online or in a blended format, describe rationale/needed resources specific to that delivery:

**All MOT courses will be taught in a blended format.**

8. Additional comments:

**Signatures:**

Approval by Program Liaison \_\_\_\_\_ Date: \_\_\_\_\_  
(identify program)

Approval by Additional Liaison \_\_\_\_\_ Date: \_\_\_\_\_  
(if cross listed, identify program)

Reviewed by Curriculum Committee Blake Whitaker Date: 9/12/18  
(chair person's signature)

Dean Approval \_\_\_\_\_ Date: \_\_\_\_\_

Revised 4-12-16

UNIVERSITY OF SOUTHERN MAINE  
LEWISTON-AUBURN COLLEGE  
MASTER OF OCCUPATIONAL THERAPY PROGRAM

**OTH 7\*\*:** Occupational Science  
Summer  
3 Credit Hours

**Time:**

**Location:**

**Faculty:**

**Required Texts:**

Hasselkus, B. R. (2011). *The meaning of everyday occupation*. Thorofare, NJ: SLACK.

Whiteford, G., & Hocking, C. (2012). *Occupational science: Society, inclusion, participation*. Chichester, West Sussex: Wiley-Blackwell.

Other assigned articles and reserve readings as indicated.

**Recommended Texts:**

Pierce, D. (Ed.). (2014). *Occupational science for occupational therapy*. Thorofare, NJ: SLACK Incorporated.

Nayar, S., & Stanley, M. (Eds.). (2016). *Qualitative research methodologies for occupational science and therapy*. London: Routledge.

**COURSE DESCRIPTION:**

This course will explore the history, theoretical foundations, and research methodologies of occupational science, as well as the application of occupational science for occupational therapy practice.

**PRE-REQUISITES:** All previous occupational therapy coursework.

**COURSE OBJECTIVES:**

**Upon satisfactory completion of OTH 7\*\*, the student will be able to:**

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- Describe the historical and philosophical roots of occupation and the discipline of occupational science.
- Compare current occupational science theories concerning the nature of occupation.
- Identify methods, including formal and informal assessments, for gathering information about an individual or population's occupations.
- Identify and apply the uses of occupation as a therapeutic medium for individuals, organizations, and populations.
- Apply occupational science evidence to occupational therapy practice.
- Identify methods for collecting and analyzing data about the occupations of individuals, groups, or populations to inform research about occupation.
- Describe how different research methodologies support knowledge generation in occupational science.
- Develop a research question and proposal in occupational science.

#### **ACOTE STANDARDS:**

##### **B.2.2**

Explain the meaning and dynamics of occupation and activity, including the interaction of areas of occupation, performance skills, performance patterns, activity demands, context(s) and environments, and client factors.

##### **B.4.10**

Recommend and provide direct interventions and procedures to persons, groups, and populations to enhance safety, health and wellness, and performance in occupations.

This must include the ability to select and deliver occupation and activities, preparatory methods and tasks (including therapeutic exercise), education and training, and advocacy.

##### **B.6.1**

- Critique quantitative and qualitative research in order to analyze and evaluate scholarly activities, which contribute to the development of a body of knowledge. This includes the:
  - Level of evidence
  - Validity of research studies
  - Strength of the methodology
  - Relevance to the profession of occupational therapy
- Locate, select, analyze, and evaluate scholarly literature to make evidence-based decisions.
- Evaluate, design, and implement a scholarly study that aligns with current research priorities and advances knowledge translation, professional practice, service delivery, or professional issues (e.g., Scholarship of Integration, Scholarship of Application, Scholarship of Teaching and Learning).

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### Assignments & Grading

Your grade in this course will be determined by the following:

Assignments	Points	Due Date	ACOTE	Assessment Measure
Personal Occupational Analysis	10		B.2.2	Assignment
Theories of Occupation Paper	15		-	Assignment
Case Studies (3: individual, group, population)	10 each		B.4.10, B.6.1	Assignment
Quantitative Analysis	5		B.6.1	Assignment
Qualitative Analysis	5		B.6.1	Assignment
Research Proposal	20		B.6.1	Assignment
Final Reflection: Occupational Science	10		-	Assignment
<b>TOTAL:</b>	<b>100</b>			



Revised 4-12-16

## **LAC Curriculum Committee Proposal for New Course Review**

### **Instructions:**

Please use this template for new courses to be added to *USM's Graduate Catalog*. The form is available in the Curriculum Committee subfolder on the LAC common drive/fac. The space associated with each item in the form will expand to fit whatever text you enter.

Submit this form first to your course's "home" degree program(s). Once this course has received program(s) approval, transmit the form and the course syllabus or blueprint as attachments in an email to the current Curriculum Committee chair, plus the original hard copy completed with the signature of the program liaison(s) indicating program(s) approval of the course. Faculty should consult with other programs about potential conflicts or collaborations, and review time and resource commitments with the Dean *before* submitting this form to the committee.

The Curriculum Committee will notify our regular faculty of new courses under review, posting course proposals on LAC's common drive as they are reviewed by the committee. In the absence of receipt of any concerns about individual courses, procedures for approval by the full faculty will be streamlined, with the Curriculum Committee requesting from the faculty as a whole periodic endorsements of panels of new courses. It will be the Committee's responsibility to keep faculty (and student services) informed of the addition of new courses.

For the course to be entered into the *USM Graduate Catalog*, it's recommended that this form and accompanying documentation be presented to the associated degree program(s) in time for program consideration prior to March 1, the USM catalog updates being due at the end of April. Submission by March 1 should provide sufficient time for the associated program(s) catalog editor(s) to complete the revision process in time for review by the LAC catalog manager and inclusion in the next year's catalog. A course number should not be reassigned within a program if it has been used within the last 10 years (confirm with Registrar's Office). It will be the program director's responsibility to request permission of the Provost to add new courses to the curriculum using the "[Curriculum Process and Signatory Sheet](#)"; also available on the Provost's web page under "Resources", "Faculty Resources", "Curriculum Process".

**A sample syllabus or course blueprint including key student learning outcomes should be included with this form.**

Revised 4-12-16

**A. Course Details** (as they will appear in the *USM Undergraduate Catalog*)

1. LAC program prefix (prefixes if cross-listed) & Number:

**OTH TBD**

2. Course Title:

**Assistive Technology Across the Lifespan**

3. Catalog Description:

**COURSE DESCRIPTION:**

This course provides students exposure to new and innovative tools and techniques. This course gives students an opportunity to work together and learn about and develop assistive technology. The course will have a multi-disciplinary team from a variety of backgrounds, as well as cultivate a better understanding of the people being served. Partnering with outside organizations, students will work in teams to identify a clinical need relevant to a certain clinical site or client population, and learn the process of developing an idea and following that through to the development of a prototype product.

4. Prerequisites: **All previous MOT required courses**

5. Credit Hours: **Three**

**B. Curricular Contributions**

1. Contribution(s) of the course to program curriculum, including relationship to other program courses (include consideration of potential overlap and/or synergy with other program courses):

**ACOTE STANDARDS:**

**Demonstrate an understanding of the use of technology to support performance, participation, health and well-being. This technology may include, but is not limited to, electronic documentation systems, distance communication, virtual environments, and telehealth technology. (B.1.8)**

**Demonstrate task analysis in areas of occupation, performance skills, performance patterns, activity demands, context(s) and environments, and client factors to formulate an intervention plan. (B.2.7)**

**Use clinical reasoning to explain the rationale for and use of compensatory strategies when desired life tasks cannot be performed. (B.2.10)**

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**Articulate principles of and be able to design, fabricate, apply, fit and train in assistive technologies, and devices (e.g., electronic aids to daily living, seating and positioning systems) used to enhance occupational performance and foster participation and well-being. (B.5.10)**

2. Contribution(s) of this course to other LAC curricula and USM Core (include consideration of potential overlap and/or synergy with other LAC courses):

**Not Applicable to Core. This course is specific to occupational therapy.**

3. Specify how this course contributes to LAC's **interdisciplinary mission**: **N/A**
4. Specify how this course contributes to USM's commitment to diversity: **N/A**

**C. Course History and Resources**

1. Taught previously at LAC as X99, or by LAC faculty at other institutions? **NO**
  - a. If yes, when, most recently?
  - b. Before then? (up to two earlier sections)

2. Who will teach this course (full-time or other, team taught, rotate, names)?

**Dr. Bernadette Kroon will lead this course**

3. Projected cycle for course (every semester, annual, biennial, etc.)?

**Summer third year. Course will be taught annually**

4. How will course fit into the faculty's existing responsibilities?

**Dr. Kroon will teach as part of summer teaching.**

5. Targeted audience and projected enrollment for the course?

**Required MOT course – 40 per year**

- a. Any marketing needs or opportunities? **NO**

6. Resources necessary to support course (nonteaching personnel, space, library, equipment, etc ...):

**No additional resources required**

Revised 4-12-16

7. If this course will be offered online or in a blended format, describe rationale/needed resources specific to that delivery:

**All MOT courses will be taught in a blended format.**

8. Additional comments:

**Signatures:**

Approval by Program Liaison \_\_\_\_\_ Date: \_\_\_\_\_  
(identify program)

Approval by Additional Liaison \_\_\_\_\_ Date: \_\_\_\_\_  
(if cross listed, identify program)

Reviewed by Curriculum Committee Blake Whitaker Date: 9/12/18  
(chair person's signature)

Dean Approval \_\_\_\_\_ Date: \_\_\_\_\_

Revised 4-12-16

UNIVERSITY OF SOUTHERN MAINE  
LEWISTON-AUBURN COLLEGE  
MASTER OF OCCUPATIONAL THERAPY PROGRAM  
**OTH ..TBD**  
**Assistive Technology Across the Lifespan**  
**3 Credit Hours**

**Faculty:**

**Time and Location:**

**Lecture:**

**Lab:**

**Required Texts:**

Cook, A. M., & Polgar, J. M. (2015). *Assistive technologies: Principles & practice* (4th ed.). St. Louis, MO: Mosby Elsevier.

American Occupational Therapy Association. (2014). Occupational therapy practice framework: Domain and process (3rd ed). *American Journal of Occupational Therapy*, 68(Suppl 1), S1- S48. <http://dx.doi.org/10.5014/ajot.2014.682006> **(OTPF)**

**Additional reading will be posted in the weekly materials folder**

**COURSE DESCRIPTION:**

This course provides students exposure to new and innovative tools and techniques. This course gives students an opportunity to work together and learn about and develop assistive technology. The course will have a multi-disciplinary team from a variety of backgrounds, as well as cultivate a better understanding of the people being served. Partnering with outside organizations, students will work in teams to identify a clinical need relevant to a certain clinical site or client population, and learn the process of developing an idea and following that through to the development of a prototype product.

Revised 4-12-16

**COURSE OBJECTIVES (ACOTE STANDARDS):****Upon satisfactory completion of this course students will:**

1. Demonstrate an understanding of the use of technology to support performance, participation, health and well-being. This technology may include, but is not limited to, electronic documentation systems, distance communication, virtual environments, and telehealth technology. (B.1.8)
2. Demonstrate task analysis in areas of occupation, performance skills, performance patterns, activity demands, context(s) and environments, and client factors to formulate an intervention plan. (B.2.7)
3. Use clinical reasoning to explain the rationale for and use of compensatory strategies when desired life tasks cannot be performed. (B.2.10)
4. Articulate principles of and be able to design, fabricate, apply, fit and train in assistive technologies, and devices (e.g., electronic aids to daily living, seating and positioning systems) used to enhance occupational performance and foster participation and well-being. (B.5.10)

**Assignments/Grading**

Your grade in this course will be determined by the following:

Assignments	Points*	Due Date	ACOTE standard	Assessment Measure
Clinical reasoning and justification for AT device/adaptation	50		B.1.8, B.2.7, B.2.10, B.5.10	Assignment
Prototype; design and production	50		B.2.7, B.2.10	Project

\*Total points = 100

Revised 4-12-16

## Assignment Descriptions

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### **Clinical reasoning and justification for AT device/adaptation:**

Each student will assess an assistive device of their choice and have 10 minutes to present it to the class. Students will be responsible for learning about the technology, and exploring how it was developed and used.

**Prototype Project** – Student groups will work with outside partners to build a prototype, perform user testing and document assistive technology. Projects will require students to conduct research into the disability they are building for and research of existing devices and software (the existing literature). Groups must be able to provide multiple iterations on their prototypes reflecting the user testing results. Projects can be physical or computer based depending on the need. Information regarding the associated documentation will be provided.

Students will be graded on Individual and Group work. *Since the Group Prototype is 50% of your grade, you must attain at least an Individual grade of B to permit inclusion of your Prototype grade.*



Revised 4-12-16

## LAC Curriculum Committee Proposal for New Course Review

### Instructions:

Please use this template for new courses to be added to *USM's Graduate Catalog*. The form is available in the Curriculum Committee subfolder on the LAC common drive/fac. The space associated with each item in the form will expand to fit whatever text you enter.

Submit this form first to your course's "home" degree program(s). Once this course has received program(s) approval, transmit the form and the course syllabus or blueprint as attachments in an email to the current Curriculum Committee chair, plus the original hard copy completed with the signature of the program liaison(s) indicating program(s) approval of the course. Faculty should consult with other programs about potential conflicts or collaborations, and review time and resource commitments with the Dean *before* submitting this form to the committee.

The Curriculum Committee will notify our regular faculty of new courses under review, posting course proposals on LAC's common drive as they are reviewed by the committee. In the absence of receipt of any concerns about individual courses, procedures for approval by the full faculty will be streamlined, with the Curriculum Committee requesting from the faculty as a whole periodic endorsements of panels of new courses. It will be the Committee's responsibility to keep faculty (and student services) informed of the addition of new courses.

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**A sample syllabus or course blueprint including key student learning outcomes should be included with this form.**

Revised 4-12-16

**A. Course Details** (as they will appear in the *USM Undergraduate Catalog*)

1. LAC program prefix (prefixes if cross-listed) & Number:

**OTH TBD**

2. Course Title:

**Pediatric Mental Health and Occupational Performance**

3. Catalog Description:

**COURSE DESCRIPTION:** This course addresses occupational therapy theory, evaluation, planning, intervention, and documentation commonly used with children with mental health disorders, emotional disturbance, and social emotional learning deficits due to trauma impeding their occupational performance. Clinical conditions will be reviewed including etiology and symptoms, and will be integrated into active learning assignments. Contextual considerations for this area of OT practice are examined, including characteristics of the individual, families and caregivers, and the inter-professional team in pediatric practice settings. Class format includes lecture, demonstration, class discussion, group work and lab experiences providing students the opportunity to apply new knowledge to clinical cases, develop clinical reasoning, and learn hands on skills needed for doctoral level practice.

4. Prerequisites: **All previous MOT required courses**

5. Credit Hours: **Three**

**B. Curricular Contributions**

1. Contribution(s) of the course to program curriculum, including relationship to other program courses (include consideration of potential overlap and/or synergy with other program courses):

**ACOTE STANDARDS:**

**B.1.2 Demonstrate knowledge and understanding of human development throughout the lifespan (infants, children, adolescents, adults, and older adults). Course content must include, but is not limited to, developmental psychology.**

**B.2.6 Understand the effects of heritable diseases, genetic conditions, disability, trauma, and injury to the physical and mental health and occupational performance of the individual.**

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**B.2.9 Express support for the quality of life, well-being, and occupation of the individual, group, or population to promote physical and mental health and prevention of injury and disease considering the context (e.g., cultural, personal, temporal, virtual) and environment.**

**B.2.11 Identify interventions consistent with of models occupational performance.**

**B.3.2 Describe basic features of models of practice and frames of reference that are used in occupational therapy.**

**B.4.4 Gather and share data for the purpose of evaluating client(s)' occupational performance in activities of daily living (ADLs), instrumental activities of daily living (IADLs), education, work, play, rest, sleep, leisure, and social participation. Evaluation of occupational performance includes**

- **The occupational profile, including participation in activities that are meaningful and necessary for the client to carry out roles in home, work, and community environments. Client factors, including values, beliefs, spirituality, body functions (e.g., neuromuscular, sensory and pain, visual, perceptual, cognitive, mental) and body structures (e.g., cardiovascular, digestive, nervous, genitourinary, integumentary systems).**
- **Performance patterns (e.g., habits, routines, rituals, roles).**
- **Context (e.g., cultural, personal, temporal, virtual) and environment (e.g., physical, social).**
- **Performance skills, including motor and praxis skills, sensory–perceptual skills, emotional regulation skills, cognitive skills, and communication and social skills.**

**B.4.9 Identify when to recommend to the occupational therapist the need for referring clients for additional evaluation.**

**B.4.10 Document occupational therapy services to ensure accountability of service provision and to meet standards for reimbursement of services, adhering to the requirements of applicable facility, local, state, federal, and reimbursement agencies. Documentation must effectively communicate the need and rationale for occupational therapy services.**

**B.5.4 Implement group interventions based on principles of group development and group dynamics across the lifespan.**

**B.5.6 Provide development, remediation, and compensation for physical, mental, cognitive, perceptual, neuromuscular, behavioral skills, and sensory functions (e.g., vision, tactile, auditory, gustatory, olfactory, pain, temperature, pressure, vestibular, proprioception).**

Revised 4-12-16

**B.5.7 Demonstrate therapeutic use of self, including one's personality, insights, perceptions, and judgments, as part of the therapeutic process in both individual and group interaction.**

**B.5.17 Promote the use of appropriate home and community programming to support performance in the client's natural environment and participation in all contexts relevant to the client.**

**B.7.1 Identify the impact of contextual factors on the management and delivery of occupational therapy services.**

2. Contribution(s) of this course to other LAC curricula and USM Core (include consideration of potential overlap and/or synergy with other LAC courses):

**Not Applicable to Core. This course is specific to occupational therapy.**

3. Specify how this course contributes to LAC's **interdisciplinary mission**: **N/A**

4. Specify how this course contributes to USM's commitment to diversity:

**This course will give students increased skill and competency in dealing with mental health conditions in pediatric settings.**

**C. Course History and Resources**

1. Taught previously at LAC as X99, or by LAC faculty at other institutions? **NO**

- a. If yes, when, most recently?

- b. Before then? (up to two earlier sections)

2. Who will teach this course (full-time or other, team taught, rotate, names)?

**Dr. Mary Anderson will lead this course**

3. Projected cycle for course (every semester, annual, biennial, etc.)?

**Summer – end of first year. Course will be taught annually**

4. How will course fit into the faculty's existing responsibilities?

**Dr. Anderson will co-teach this as part of summer load.**

Revised 4-12-16

5. Targeted audience and projected enrollment for the course?

**Required MOT course – 40 per year**

a. Any marketing needs or opportunities? **NO**

6. Resources necessary to support course (nonteaching personnel, space, library, equipment, etc ...):

**No additional resources required**

7. If this course will be offered online or in a blended format, describe rationale/needed resources specific to that delivery:

**All MOT courses will be taught in a blended format.**

8. Additional comments:

**Signatures:**

Approval by Program Liaison \_\_\_\_\_ Date: \_\_\_\_\_  
(identify program)

Approval by Additional Liaison \_\_\_\_\_ Date: \_\_\_\_\_  
(if cross listed, identify program)

Reviewed by Curriculum Committee Blake Whitaker Date: 9/12/18  
(chair person's signature)

Dean Approval \_\_\_\_\_ Date: \_\_\_\_\_

Revised 4-12-16

UNIVERSITY OF SOUTHERN MAINE  
LEWISTON-AUBURN COLLEGE  
OCCUPATIONAL THERAPY DOCTORAL PROGRAM

**OTH \_TBD \_**  
**Pediatric Mental Health and Occupational Performance**  
**3 Credit Hours**

**Time:**

**Location:**

**Faculty: Dr. Mary Anderson**

**Required Texts:**

Brandt, K., Perry, B., Seligman, S., Tronick, E. (2014) *Infant and Early Childhood Mental Health; Core Concepts and Clinical Practice*. American Psychiatric Publishing

Bazyk, S. (2011) *Mental Health Promotion, Prevention, and Intervention with Children and Youth; A Guiding Framework for Occupational Therapy*. AOTA Press

Steele, W. & Malchiodi, C.A. (2012) *Trauma-Informed Practices with Children and Adolescents*. Taylor and Francis Group LLC

● **University Resources:**

- The university is committed to providing students with documented disabilities equal access to all university programs and services. If you think you have a disability and would like to request accommodations, you must register with the Disability Services Center. Timely notification is essential. If you have already received a faculty accommodation letter from the Disability Services Center, please provide the instructor with that information as soon as possible. Please make a private appointment with the instructor so your accommodations can be reviewed.

Contact Information:  
Disability Services Center  
Phone: 207-780-4706  
E-mail: [dsc-usm@maine.edu](mailto:dsc-usm@maine.edu).

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- USM-LAC Writing Center  
Located in Suite 187  
Phone: 207-753-6513  
Schedule an appointment online:  
<https://usm.maine.edu/writingcenter/setting-appointment-writing-center>
- Blackboard Support - University Technology Support  
Phone: 1-800-696-4357  
Internet: <https://mycampus.maine.edu/group/mycampus/technology-support-center>  
Email: techsupport@maine.edu

**COURSE DESCRIPTION:** This course addresses occupational therapy theory, evaluation, planning, intervention, and documentation commonly used with children with mental health disorders, emotional disturbance, and social emotional learning deficits due to trauma impeding their occupational performance. Clinical conditions will be reviewed including etiology and symptoms, and will be integrated into active learning assignments. Contextual considerations for this area of OT practice are examined, including characteristics of the individual, families and caregivers, and the inter-professional team in pediatric practice settings. Class format includes lecture, demonstration, class discussion, group work and lab experiences providing students the opportunity to apply new knowledge to clinical cases, develop clinical reasoning, and learn hands on skills needed for doctoral level practice.

**PRE-REQUISITES:**

**Successful completion of all previous OTH required coursework**

**COURSE OBJECTIVES:**

**Upon satisfactory completion of this course, the student will:**

**ACOTE STANDARDS:**

B.1.2 Demonstrate knowledge and understanding of human development throughout the lifespan (infants, children, adolescents, adults, and older adults). Course content must include, but is not limited to, developmental psychology.

B.2.6 Understand the effects of heritable diseases, genetic conditions, disability, trauma, and injury to the physical and mental health and occupational performance of the individual.

B.2.9 Express support for the quality of life, well-being, and occupation of the individual, group, or population to promote physical and mental health and prevention of injury and disease considering the context (e.g., cultural, personal, temporal, virtual) and environment.

B.2.11 Identify interventions consistent with of models occupational performance.



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B.3.2 Describe basic features of models of practice and frames of reference that are used in occupational therapy.

B.4.4 Gather and share data for the purpose of evaluating client(s)' occupational performance in activities of daily living (ADLs), instrumental activities of daily living (IADLs), education, work, play, rest, sleep, leisure, and social participation. Evaluation of occupational performance includes

- The occupational profile, including participation in activities that are meaningful and necessary for the client to carry out roles in home, work, and community environments. Client factors, including values, beliefs, spirituality, body functions (e.g., neuromuscular, sensory and pain, visual, perceptual, cognitive, mental) and body structures (e.g., cardiovascular, digestive, nervous, genitourinary, integumentary systems).
- Performance patterns (e.g., habits, routines, rituals, roles).
- Context (e.g., cultural, personal, temporal, virtual) and environment (e.g., physical, social).
- Performance skills, including motor and praxis skills, sensory-perceptual skills, emotional regulation skills, cognitive skills, and communication and social skills.

B.4.9 Identify when to recommend to the occupational therapist the need for referring clients for additional evaluation.

B.4.10 Document occupational therapy services to ensure accountability of service provision and to meet standards for reimbursement of services, adhering to the requirements of applicable facility, local, state, federal, and reimbursement agencies. Documentation must effectively communicate the need and rationale for occupational therapy services.

B.5.4 Implement group interventions based on principles of group development and group dynamics across the lifespan.

B.5.6 Provide development, remediation, and compensation for physical, mental, cognitive, perceptual, neuromuscular, behavioral skills, and sensory functions (e.g., vision, tactile, auditory, gustatory, olfactory, pain, temperature, pressure, vestibular, proprioception).

B.5.7 Demonstrate therapeutic use of self, including one's personality, insights, perceptions, and judgments, as part of the therapeutic process in both individual and group interaction.

B.5.17 Promote the use of appropriate home and community programming to support performance in the client's natural environment and participation in all contexts relevant to the client.

B.7.1 Identify the impact of contextual factors on the management and delivery of occupational therapy services.

### **Assignments/Grading:**

Your grade in this course will be determined by the following:

Revised 4-12-16

Assignments	Points	Due Date	ACOTE	Assessment Measure
Mental Health Promotion Presentation	10		B.2.9 B.5.17 B.7.1	Presentation
Group Facilitation	20		B.4.10 B.5.4 B.5.6 B.5.7	Presentation
Evaluation Assignment	20		B.2.11 B.4.4 B.4.9 B.5.6	Assignment
2 Quizzes	5ea.		B.1.2 B.2.6 B.3.2	Test
Case 1	15		B.2.11 B.4.9 B.4.10 B.5.6 B.7.1	Assignment
Case 2	15		B.2.11 B.4.9 B.4.10 B.5.6 B.7.1	Assignment
Final Exam	20		B.1.2 B.2.6 B.3.2	Test

\*Total points of course = 100

Assignment descriptions:

**Mental Health Promotion Presentation**

Individually students will develop a presentation to express support for the mental health aspect in quality of life, well-being, and occupation of the individual, group, or population. In this presentation you will promote prevention of and intervention for mental health issues in children/adolescents considering the context (e.g., cultural, personal, temporal, virtual) and

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environment. You will promote the use of appropriate home and community programming to support performance in the client's natural environment and participation in all contexts relevant to the client and identify the impact of contextual factors on the management and delivery of occupational therapy services.

### **Group Facilitation**

Individually students will be assigned to a social skills group that is occurring in the clinic. The student will be expected to implement group interventions based on principles of group development and group dynamics across the lifespan, provide development, remediation, and compensation for mental, cognitive, perceptual, and behavioral skills. During the implementation the student is expected to demonstrate therapeutic use of self, including one's personality, insights, perceptions, and judgments, as part of the therapeutic process. Following the group the student is expected to document on each participant the occupational therapy services that were delivered to ensure accountability of service provision and to meet standards for reimbursement of services, adhering to the requirements of applicable facility, local, state, federal, and reimbursement agencies. Documentation must effectively communicate the need and rationale for occupational therapy services.

### **Evaluation Assignment**

Students will be assigned a pediatric client to complete an evaluation on using the models covered in lecture. During this evaluation the student is expected to gather and share data for the purpose of evaluating client(s)' occupational performance in activities of daily living (ADLs), instrumental activities of daily living (IADLs), education, work, play, rest, sleep, leisure, and social participation and make connections to social emotional learning on such ADL's. Following the data collection and interpretation, the student is expected to develop client centered goals and identify interventions consistent with of models occupational performance. Identify when to recommend to the occupational therapist the need for referring clients for additional evaluation. Provide development, remediation, and compensation for mental, cognitive, perceptual, and behavioral skills.

### **Quizzes**

These are short quizzes covering reading and lecture material

#### **Case 1**

Case 1 will be a diagnosis of a common mental health disorder in children. Students will be expected to develop goals and ongoing intervention and consultation based on contextual considerations, evidence based practice, and theories covered in class.

#### **Case 2**

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Case 2 will be a trauma related diagnosis for an adolescent. Student expectations will be the same.

*-(more extensive thought will go into these specific cases and further expectations)*

**Final Exam**

Revised 4-12-16

## **LAC Curriculum Committee Proposal for New Course Review**

### **Instructions:**

Please use this template for new courses to be added to *USM's Graduate Catalog*. The form is available in the Curriculum Committee subfolder on the LAC common drive/fac. The space associated with each item in the form will expand to fit whatever text you enter.

Submit this form first to your course's "home" degree program(s). Once this course has received program(s) approval, transmit the form and the course syllabus or blueprint as attachments in an email to the current Curriculum Committee chair, plus the original hard copy completed with the signature of the program liaison(s) indicating program(s) approval of the course. Faculty should consult with other programs about potential conflicts or collaborations, and review time and resource commitments with the Dean *before* submitting this form to the committee.

The Curriculum Committee will notify our regular faculty of new courses under review, posting course proposals on LAC's common drive as they are reviewed by the committee. In the absence of receipt of any concerns about individual courses, procedures for approval by the full faculty will be streamlined, with the Curriculum Committee requesting from the faculty as a whole periodic endorsements of panels of new courses. It will be the Committee's responsibility to keep faculty (and student services) informed of the addition of new courses.

For the course to be entered into the *USM Graduate Catalog*, it's recommended that this form and accompanying documentation be presented to the associated degree program(s) in time for program consideration prior to March 1, the USM catalog updates being due at the end of April. Submission by March 1 should provide sufficient time for the associated program(s) catalog editor(s) to complete the revision process in time for review by the LAC catalog manager and inclusion in the next year's catalog. A course number should not be reassigned within a program if it has been used within the last 10 years (confirm with Registrar's Office). It will be the program director's responsibility to request permission of the Provost to add new courses to the curriculum using the "[Curriculum Process and Signatory Sheet](#)"; also available on the Provost's web page under "Resources", "Faculty Resources", "Curriculum Process".

**A sample syllabus or course blueprint including key student learning outcomes should be included with this form.**

Revised 4-12-16

**A. Course Details** (as they will appear in the *USM Undergraduate Catalog*)

1. LAC program prefix (prefixes if cross-listed) & Number:

**OTH 710**

2. Course Title:

**Research Course II**

3. Catalog Description:

**COURSE DESCRIPTION:**

**This course provides the opportunity for students to apply research concepts to the investigation of an occupational therapy question, need, or evaluation of occupational therapy practice. Using the research question generated in the first course of the research sequence, students will initiate their research project and begin to collect and analyze data. Course sessions and assignments will guide students through this initial phase of the research process.**

4. Prerequisites: **All previous MOT required courses**

5. Credit Hours: **Three**

**B. Curricular Contributions**

1. Contribution(s) of the course to program curriculum, including relationship to other program courses (include consideration of potential overlap and/or synergy with other program courses):

**ACOTE STANDARDS:**

**Select, apply, and interpret basic descriptive, correlational, and inferential quantitative statistics and code, analyze, and synthesize qualitative data (B.8.4)**

**Implement a scholarly study that evaluates professional practice, service delivery, and/or professional issues (e.g. Scholarship of Integration, Scholarship of Application, Scholarship of Teaching and Learning (B.8.7)**

2. Contribution(s) of this course to other LAC curricula and USM Core (include consideration of potential overlap and/or synergy with other LAC courses):

Revised 4-12-16

**Not Applicable to Core. This course is specific to occupational therapy.**

3. Specify how this course contributes to LAC's **interdisciplinary mission**: **N/A**

4. Specify how this course contributes to USM's commitment to diversity: **N/A**

**C. Course History and Resources**

1. Taught previously at LAC as X99, or by LAC faculty at other institutions? **NO**

a. If yes, when, most recently?

b. Before then? (up to two earlier sections)

2. Who will teach this course (full-time or other, team taught, rotate, names)?

**Dr. Susan Noyes will lead this course**

3. Projected cycle for course (every semester, annual, biennial, etc.)?

**Fall third year. Course will be taught annually**

4. How will course fit into the faculty's existing responsibilities?

**Dr. Noyes will co-teach this as part of her load.**

5. Targeted audience and projected enrollment for the course?

**Required MOT course – 40 per year**

a. Any marketing needs or opportunities? **NO**

6. Resources necessary to support course (nonteaching personnel, space, library, equipment, etc ...):

**No additional resources required**

7. If this course will be offered online or in a blended format, describe rationale/needed resources specific to that delivery:

**All MOT courses will be taught in a blended format.**

8. Additional comments:



Revised 4-12-16

**Signatures:**

Approval by Program Liaison \_\_\_\_\_ Date: \_\_\_\_\_  
(identify program)

Approval by Additional Liaison \_\_\_\_\_ Date: \_\_\_\_\_  
(if cross listed, identify program)

Reviewed by Curriculum Committee Blake Whitaker Date: 9/12/18  
(chair person's signature)

Dean Approval \_\_\_\_\_ Date: \_\_\_\_\_

UNIVERSITY OF SOUTHERN MAINE  
LEWISTON-AUBURN COLLEGE  
DOCTOR OF OCCUPATIONAL THERAPY PROGRAM

**OTH 710 Research Course 2**  
**Fall 20\_\_**  
**3 Credit Hours**

**Faculty:**

Susan Noyes, PhD, OTR/L

Work# 753-6591, email: susan.noyes@maine.edu

Office # 185C; Hours by appointment

**Time and Location:** TBA

**Required Texts:**

Revised 4-12-16

Brown, C. (2017). *The Evidence-Based Practitioner: Applying Research to Meet Client Needs*. Philadelphia: F.A. Davis Co.

Galvan, J. & Galvan, M. (2017). *Writing literature reviews: A guide for students of the behavioral sciences*. (7<sup>th</sup> ed.). New York: Routledge

Kielhofner, G. (2017). *Research in Occupational Therapy 2nd edition*. Philadelphia: F.A.Davis Co.

### **COURSE DESCRIPTION:**

This course provides the opportunity for students to apply research concepts to the investigation of an occupational therapy question, need, or evaluation of occupational therapy practice. Using the research question generated in the first course of the research sequence, students will initiate their research project and begin to collect and analyze data. Course sessions and assignments will guide students through this initial phase of the research process.

### **COURSE OBJECTIVES (ACOTE STANDARDS):**

**Upon satisfactory completion of OTH 710 students will:**

1. Select, apply, and interpret basic descriptive, correlational, and inferential quantitative statistics and code, analyze, and synthesize qualitative data (B.8.4)
2. Implement a scholarly study that evaluates professional practice, service delivery, and/or professional issues (e.g. Scholarship of Integration, Scholarship of Application, Scholarship of Teaching and Learning (B.8.7)

### **Assignments/Grading**

Your **grade** in this course will be determined by the following:

Assignments	Points*	Due Date	ACOTE standard	Assessment Measure
Literature Review: Draft 2	35		B.8.7	Assignment
IRB Materials and Submission	25		B.8.7	Assignment
Findings Report	35		B.8.4	Assignment

\*Total points = 100

Revised 4-12-16

## Assignment Descriptions

### Literature Review

---

The literature review is a comprehensive analysis of the literature pertinent to the research topic. The purpose of the literature review is to demonstrate to the reader that the researcher is knowledgeable about the research topic and has thoroughly examined the literature. Students will submit a comprehensive literature review demonstrating extensive knowledge of their chosen research topic. It is expected that a variety of professional resources will be incorporated into the literature review. The literature review should be written in APA format.

### IRB Materials and Submission

---

The consent form, proposal, and additional IRB forms will be submitted to USM's Institutional Review Board for approval. The consent form is designed to provide the research participants with a brief summary of the study, along with the potential risks and benefits, and contact information. Guidelines will be found on the USM IRB website. You will submit all materials to the course instructor for editing/approval and when reviewed and approved, the course instructor will send the packet to the IRB.

Grades will be determined based on the following criteria:

Completeness of forms and entire protocol	15 points
Clarity of Information	10 points

### Findings Report

---

Students will submit a report of the initial findings from their research project. This report will describe and detail the results of the research, i.e. the data that will be evaluated and analyzed in the interpretation phase of the research study.

Revised 4-12-16

## **LAC Curriculum Committee Proposal for New Course Review**

### **Instructions:**

Please use this template for new courses to be added to *USM's Graduate Catalog*. The form is available in the Curriculum Committee subfolder on the LAC common drive/fac. The space associated with each item in the form will expand to fit whatever text you enter.

Submit this form first to your course's "home" degree program(s). Once this course has received program(s) approval, transmit the form and the course syllabus or blueprint as attachments in an email to the current Curriculum Committee chair, plus the original hard copy completed with the signature of the program liaison(s) indicating program(s) approval of the course. Faculty should consult with other programs about potential conflicts or collaborations, and review time and resource commitments with the Dean *before* submitting this form to the committee.

The Curriculum Committee will notify our regular faculty of new courses under review, posting course proposals on LAC's common drive as they are reviewed by the committee. In the absence of receipt of any concerns about individual courses, procedures for approval by the full faculty will be streamlined, with the Curriculum Committee requesting from the faculty as a whole periodic endorsements of panels of new courses. It will be the Committee's responsibility to keep faculty (and student services) informed of the addition of new courses.

For the course to be entered into the *USM Graduate Catalog*, it's recommended that this form and accompanying documentation be presented to the associated degree program(s) in time for program consideration prior to March 1, the USM catalog updates being due at the end of April. Submission by March 1 should provide sufficient time for the associated program(s) catalog editor(s) to complete the revision process in time for review by the LAC catalog manager and inclusion in the next year's catalog. A course number should not be reassigned within a program if it has been used within the last 10 years (confirm with Registrar's Office). It will be the program director's responsibility to request permission of the Provost to add new courses to the curriculum using the "Curriculum Process and Signatory Sheet"; also available on the Provost's web page under "Resources", "Faculty Resources", "Curriculum Process".

**A sample syllabus or course blueprint including key student learning outcomes should be included with this form.**

Revised 4-12-16

**A. Course Details** (as they will appear in the *USM Undergraduate Catalog*)

1. LAC program prefix (prefixes if cross-listed) & Number:

**OTH 720**

2. Course Title:

**Research Course III**

3. Catalog Description:

**COURSE DESCRIPTION:**

**This course provides the opportunity for students to apply research concepts to the investigation of an occupational therapy question, need, or evaluation of occupational therapy practice. Students will continue and complete their research project initiated in OTH 710, interpreting their data, writing a research report, and preparing a manuscript for publication and/or presentation. Course sessions and assignments will guide students through completion of the research process.**

4. Prerequisites: **All previous MOT required courses**

5. Credit Hours: **Three**

**B. Curricular Contributions**

1. Contribution(s) of the course to program curriculum, including relationship to other program courses (include consideration of potential overlap and/or synergy with other program courses):

**ACOTE STANDARDS:**

**Implement a scholarly study that evaluates professional practice, service delivery, and/or professional issues (e.g. Scholarship of Integration, Scholarship of Application, Scholarship of Teaching and Learning (B.8.7)**

**Write scholarly reports appropriate for presentation or for publication in a peer-reviewed journal. Examples of scholarly reports would include position papers, white papers, and persuasive discussion papers. (B.8.8)**

2. Contribution(s) of this course to other LAC curricula and USM Core (include consideration of potential overlap and/or synergy with other LAC courses):

Revised 4-12-16

**Not Applicable to Core. This course is specific to occupational therapy.**

3. Specify how this course contributes to LAC's **interdisciplinary mission**: **N/A**

4. Specify how this course contributes to USM's commitment to diversity: **N/A**

**C. Course History and Resources**

1. Taught previously at LAC as X99, or by LAC faculty at other institutions? **NO**

a. If yes, when, most recently?

b. Before then? (up to two earlier sections)

2. Who will teach this course (full-time or other, team taught, rotate, names)?

**Dr. Susan Noyes will lead this course**

3. Projected cycle for course (every semester, annual, biennial, etc.)?

**Spring third year. Course will be taught annually**

4. How will course fit into the faculty's existing responsibilities?

**Dr. Noyes will co-teach this as part of her load.**

5. Targeted audience and projected enrollment for the course?

**Required MOT course – 40 per year**

a. Any marketing needs or opportunities? **NO**

6. Resources necessary to support course (nonteaching personnel, space, library, equipment, etc ...):

**No additional resources required**

7. If this course will be offered online or in a blended format, describe rationale/needed resources specific to that delivery:

**All MOT courses will be taught in a blended format.**

8. Additional comments:

Revised 4-12-16

**Signatures:**

Approval by Program Liaison \_\_\_\_\_ Date: \_\_\_\_\_  
(identify program)

Approval by Additional Liaison \_\_\_\_\_ Date: \_\_\_\_\_  
(if cross listed, identify program)

Reviewed by Curriculum Committee Blake Whitaker Date: 9/12/18  
(chair person's signature)

Dean Approval \_\_\_\_\_ Date: \_\_\_\_\_



Revised 4-12-16

UNIVERSITY OF SOUTHERN MAINE  
LEWISTON-AUBURN COLLEGE  
DOCTOR OF OCCUPATIONAL THERAPY PROGRAM

**OTH 720 Research Course 3**

**Spring 20\_\_**

**3 Credit Hours**

**Faculty:**

Susan Noyes, PhD, OTR/L

Work# 753-6591, email: susan.noyes@maine.edu

Office # 185D; Hours by appointment

**Time and Location:** TBA

**Required Texts:**

Brown, C. (2017). *The Evidence-Based Practitioner: Applying Research to Meet Client Needs*. Philadelphia: F.A. Davis Co.

Galvan, J. & Galvan, M. (2017). *Writing literature reviews: A guide for students of the behavioral sciences*. (7<sup>th</sup> ed.). New York: Routledge

Kielhofner, G. (2017). *Research in Occupational Therapy 2nd edition*. Philadelphia: F.A.Davis Co.

Revised 4-12-16

**COURSE DESCRIPTION:**

This course provides the opportunity for students to apply research concepts to the investigation of an occupational therapy question, need, or evaluation of occupational therapy practice. Students will continue and complete their research project initiated in OTH 710, interpreting their data, writing a research report, and preparing a manuscript for publication and/or presentation. Course sessions and assignments will guide students through completion of the research process.

**COURSE OBJECTIVES (ACOTE STANDARDS):**

**Upon satisfactory completion of OTH 720 students will:**

1. Implement a scholarly study that evaluates professional practice, service delivery, and/or professional issues (e.g. Scholarship of Integration, Scholarship of Application, Scholarship of Teaching and Learning. (B.8.7)
2. Write scholarly reports appropriate for presentation or for publication in a peer-reviewed journal. Examples of scholarly reports would include position papers, white papers, and persuasive discussion papers. (B.8.8)

**Assignments/Grading**

Your grade in this course will be determined by the following:

Assignments	Points*	Due Date	ACOTE standard	Assessment Measure
Results and Discussion Report		25	B.8.7	Assignment
Final Paper		55	B.8.8	Assignment
Class Presentation		20	B.8.8	Assignment

Revised 4-12-16

\*Total points = 100

### **Assignment Descriptions**

#### **Results & Discussion Report**

Students will submit a report of the analysis and interpretation of the findings from their research project. This report will describe the process used for analysis and interpretation of the research findings, and provide in-depth discussion of the importance and application of the results of their research.

**Final Paper:** The entire research project will be written in one comprehensive paper that is suitable for submission for publication. Students will identify a potential journal for submission and write the final paper to align with the publication guidelines of that journal. This paper will be written throughout the course of the semester and should contain the sections identified in the Taylor/Kielhofner text.

**Class presentation:** Students will prepare a 20-minute presentation of their research study and findings for the class. Students will be graded on the clarity and professionalism of their presentations and the ability to answer questions related to the research study.

**Micro-credential Development within the UMS:  
Report and Recommendations  
May 2019**

**Prepared by:**

The UMS Micro-Credential Steering Committee

Dr. Claire Sullivan, UM and  
Rosa Redonnett, UMS, co-chairs

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## **Micro-credential Development within the UMS: Report and Recommendations May 2019**

### **Introduction/Overview**

Maine has established a statewide educational attainment goal of 60% of Maine adults ages 25+ having a post-secondary degree or a vocationally significant credential by 2025 (MaineSpark – adopted by Maine State Legislature 2018). Projections through 2026 and beyond clearly show a major shift toward a workforce that has at least some post-secondary education. Approximately 185,000-200,000 Mainers have some college but no degree, representing a significant “stranded” investment in their education and their futures. Coming out of the Adult Degree Completion Report and Recommendations (June 2018), developing a series of “stackable credentials” that enable adult learners to build their attainment across the continuum of credentials, and in accelerated course formats, will be an important additional level of program development; this will enable the UMS to better meet the needs of Maine’s employers and the educational goals of its people.

As stated within the UMS Board of Trustees Declaration of Strategic Priorities to Address Critical State Needs (Goal 1, Action 4), “in collaboration with existing businesses, non-profits, and community partners, UMS will develop coordinated workforce micro-credentials that are relevant in the workplace for economic development and expansion.” While the original charge called for the development of these by May 2019, this Report focuses on the critical components of a unifying framework and recommendations which can build the platform upon which this initiative can grow within the UMS and across the state. The “state of the art” is such that substantial foundational work will need to be completed which expands connections and dialogue about credential development to employers and other partners and which builds more understanding and adoption of the concept of micro-credentials within the UMS. While internal (UMS) and statewide conversations have begun around the development of an aligned micro-credential “ecosystem,” those conversations are very much in the beginning stages.

Initiatives across the country are focusing on the development of micro-credentials that represent the attainment of critical skills and competencies of need for the workforce – both those that are considered 21<sup>st</sup> Century skills (the so-called “soft” or foundational skills) and those that are more technical in nature. This Report and Recommendations of the Micro-credential Steering Committee presents a framework for micro-credential development in the UMS and potentially statewide, along with a set of implementation recommendations including the identification of appropriate program delivery modalities and credential development, priority external partnerships, timelines and budget considerations. Ultimately, the goal is to

implement and execute strategies to provide adult learners with affordable, flexible, stackable credential- and degree-based programming that is aligned with the needs of the adult learner population and their employers. In addition, this initiative has the promise to grow the concept of stackable credentials across a variety of youth programs (ex. 4-H, Early College) into and beyond higher education, and to further enrich academic programs for all student populations.

This is an evolving, transformational concept within higher education; the framework and recommendations contained within this report are designed to put the UMS at the forefront of this rapidly expanding approach to skill and credential attainment closely aligned with the needs of the state's economy and workforce. This work is closely connected to several other UMS priorities:

- The Adult Degree Completion Report (June 2018) formed the basis for the expansion of this work;
- the Workforce Engagement Report issued in March 2019 gave a preview of how this concept could be operationalized within workforce development and engagement with Maine's employer community;
- the UMS Research and Development Plan, 2020 recommends providing more experiential/innovation learning opportunities for our students which could potentially result in credentialing opportunities for both traditional and non-traditional students;
- Pathway and micro-credential development is a developing notion within our Early College initiative;
- The University of Maine Graduate and Professional Center (aka the Maine Center), through its engagement with the business community around graduate-level professional development, offers an opportunity to extend the concept of micro-credentials into the area of graduate education;
- Our focus on controlling student debt and making higher education more affordable for Maine's citizens is further supported by efforts such as these which can expand the opportunities for educational attainment beyond the age-old understanding that a degree is the only valid representation of attainment; stackable micro-credentials can ultimately result in skill/competency-focused achievement of valid, verifiable meta-badges that will be valued in the marketplace and can serve as jumping off points for progressing to the degree.

### **Overview of the State of the Field**

Many education and training providers have entered into the market introducing new forms of credentials, such as digital badges, "nanodegrees," and various other forms of micro-credentials. The influx of these types of credentials has caused confusion and created "noise"



for various stakeholders. Even with this growth, there are indications that both student and employer needs are not being met. At this time, there is a lack of standardization and quality assurance processes in place surrounding micro-credentialing. Students do not have a reliable way to determine a credential's market value and its connection to other meaningful credentials.

Employers are requesting an easy way to assess the skills a learner has mastered and trust that the credential is both a reliable and valid indicator of competency. Universities need transparency to inform learners about the value of credentials for employment, career advancement and other specified outcomes. Micro-credentials offer a structured approach to developing workforce talent by providing a tool for employees to assess their skill sets and to create a trusted record of their efforts. This is important for upskilling employees/teams, advancing one's career, and improving employee engagement and retention. Employers also need to fill emerging, specialized skill gaps that are not yet addressed within traditional credentialing structures.

To address the complexity of credentials today, the Lumina Foundation along with Business Roundtable, launched Credential Engine in 2016. They are beginning to build a cloud-based Credential Registry around a common language. UMS and the Maine Community College System are participating in this national effort. A recent study from Northeastern University shows an increasing demand for job applicants holding certificates, micro-credentials and real-world professional experience, in addition to earning degrees (Gallagher, 2018). Employers are recognizing that lifelong learning is essential for becoming employed and remaining relevant in today's job market.

Verifiable digital credentials are becoming increasingly important as a way for educational institutions and employers to recognize multiple forms of learning. The concept of Open Badges originated from the research of Maine native, Erin Knight, founding Director at Mozilla, with collaborations within Mozilla and the MacArthur Foundation in 2011. Erin returned to Maine and the University of Maine became a founding partner of her Maine State of Learning initiative (2015). The goal was to develop an aligned digital badging ecosystem across the state. Since this time UMaine has worked to bring together state badging initiative to create a holistic and aligned framework.

IMS Global Learning Consortium, a nonprofit member organization, is now responsible for managing and advancing the Open Badges specification. They are working to develop new models of digital credentialing, to aid higher education in integrating academic, employment and career opportunities. These models will also decrease redundancy for students moving between institutions and employers throughout their lives. *Open Badges* is designed for

compatibility and interoperability with the other IMS standards such as the Comprehensive Learner Record, formerly called the Extended Transcript.

*Open Badges* are learner-centered and portable, containing metadata that provides information about the issuing organization, the criteria, and evidence to validate the rigor of the badge. Badge earners can store and share their badges across an open digital credentialing ecosystem (IMS Global).

Learning is more fluid today than in the past, especially for adult learners. Learners are circling in and out of higher education. As a result, there is an even greater need today for flexible pathways that lead to a credential of value. Associations and organizations, outside of higher-education are seeking new ways to train, identify and hire talent. Micro-credentials, based on industry/employer standards, provide market revenue potential traditionally under-tapped. From Executive Education, Professional Development, and other adult learning opportunities. It is imperative that UMS joins in on this trend by creating credentials of value to meet multiple state needs.

Students, needing flexible options, are turning to micro-credentials to master job-specific skills in a short amount of time. Employers are asking universities to improve their credentials as hiring signals. Micro-credentials are gaining traction as complements and supplements to degrees. Embedding work-experience into these credentials will aid in meeting employers' demand. Micro-credentials add evidence-based skill sets that complement the traditional and foundational degree. Quality assurance is an essential component of micro-credential's success. Higher education plays a pivotal role in validating evidence and assessing learning outcomes against established standards in order for these credentials to take hold.

Education Design Lab launched its 21st Century Digital Badging Skills Challenge to help meet the skills gap. The University of Maine was selected as one of seven campuses across the nation to participate in its "Tee Up The Skills" campaign. The goal is to understand the impact 21st Century Skills badges can have on the hiring process. Northern Light Health and Bangor Savings Bank participated in this yearlong pilot.

The University of Maine System is well positioned to lead the way by incorporating our framework and aligning efforts across the state. Members of the Steering Committee have been repeatedly told that Maine is ahead of the curve when it comes to micro-credential development. Don Fraser (Education Design Lab) stated, "University of Maine is a national leader in the digital badging space. While there may be other higher education institutions who can quote a larger number of badges awarded, they cannot point to the University's depth and breadth of work. What the University of Maine is doing thus far is more comprehensive and

thoughtful than other approaches to bundle smaller chunks of content and slap a badge on it. The Engaged Black Bear initiative is a model other institutions point to when they imagine how to achieve scale and impact. We believe UMS, broadly, is poised to be an example of how to create a learn and earn badging ecosystem that supports learners' and employers' needs in a global, connected and rapidly changing work environment."

Colleges and universities are piloting numerous micro-credential programs across the country and the world. A variety of strategies, with various goals, are receiving attention. No institutions or systems of institutions have figured out the best approach. The following is a broad outline of some of the approaches across the US:

- The University of Utah's Degree Plus Certificates are skills-based, non-credit credentials offered outside of their degree programs.
- The non-profit EdX, founded by MIT and Harvard offers high-quality Massive Open Online Courses (MOOCs) on an open-access platform.
- For-profit companies, such as Udacity, also offer similar online courses/modules, offering "nanodegrees" in tech fields. They recently integrated technical mentors, expert reviewers, career coaching and personalized learning strategies.
- The University System of Maryland, State University of New York System, and other University Systems are developing aligned policies and procedures
- The non-profit Digital Promise offers a series of granular, competency-based, professional learning micro-credentials for educators. They also partner with Universities to offer graduate level-credit.
- University Learning Store, a collaboration of universities, offers skills-based, non-credit, online learning credentials.
- Northeastern and IBM have partnered to offer IBM-issued digital badges within three professional masters programs.

We are witnessing a shift from seat-time learning and professional development to a competency-based model, based on educational challenges, societal changes, and demand from employers, both in degree-granting programs and non-credit programs such as those referenced above. Employers are looking for credentials that can verify skill attainment with evidence. Students who can demonstrate that they have the relevant skills employers need will stand out in the crowd. There is a great need to connect credentials to create clearly defined learning pathways that are based on intentional practice and real-world application.

### **Description of the Work of the Steering Committee**

The Steering Committee was formed in late January 2019 and met every other week beginning February 14. Work began with an overview of the intent behind the Strategic Priorities of the

BOT, a “scoping” of the work to fit within the extremely short timeframe given for the issuing of this report and recommendations and a review of initiatives already underway within the UMS and state that would support the work. The decision was made to focus on:

- developing a framework concept that is flexible, engages partners within and outside of the UMS, and could support shared delivery across the campuses;
- issuing recommendations to include selecting an online portal to track micro-credentials and enable students to have access to their micro-credential record;
- estimating the budgetary and resource needs to support the micro-credential infrastructure, both by category and potential cost.

A review of the state attainment initiative (MaineSpark and Maine Adult Promise), the national credentialing initiative Credential Engine, and the discussions occurring statewide connected to developing alignment and an “ecosystem” comprised the beginning stages of discovery related to micro-credentialing. Numerous national, state and local resources and studies were shared via a shared google drive. Those initiatives within the UMS that seemed connected to this project were discussed - these included the Engaged Black Bear initiative, the discussions underway with Maine employers within the Maine Center, digital badging occurring within Cooperative Extension’s 4-H program, and curricular development within USM’s undergraduate business program specific to the addition of a micro-credential to degree requirements for 2020.

A survey was conducted across the System to determine what if any additional digital badging or micro-credential initiatives were underway; with the exception of the University of Maine, any that do exist are still extremely formative. Many certificates are offered within the UMS, some of which may be subdivided into badges. Badges may be stacked to culminate in a certificate, and certificates may be stackable into degrees (see the framework description). The Workforce Engagement Report (BOT, March 2019) was reviewed with the committee and overlaps between that report and the eventual recommendations of this report were identified; most significantly, the needed outreach and discussion with Maine employers and the learner engagement specific to the identification of their skill/competency development needs recommended within the Workforce Engagement report are the same as that which will be required for the development of micro-credentials within the UMS.

A separate subcommittee was formed to review what platforms exist for validating and tracking micro-credential achievement. The primary focus of this subcommittee was to formulate the requirements for an eventual RFP to select a platform and to gain a better understanding of the current state of this rapidly evolving technology (see appendix for RFP requirements). BADGR

and Portfolium were invited to give presentations about their respective platforms and to share their perspectives on where the technology will be developing in the future.

Education Design Labs (EDL), a non-profit organization that has as one of its foci micro-credentials and 21st century skill development, joined the committee to update it on the underpinning of developing this kind of ecosystem, discuss the key skill gaps as seen from the employer perspective, and to explore how badging could be expanded across the UMS. Documenting skills being learned within existing programs, considering both non-credit and credit options for micro-credentials, exploring stackable badges through various levels, and determining how best to engage employers in the identification of needed skills were all included within the next steps to be considered as the development of a UMS vision for micro-credentials occurs. The basic and transformational question that emerged was “how do we create a best-in-class micro-credential ecosystem that allows all Maine learners to intentionally and continually develop the needed combination of technical and 21st-century skills?”

### **Developing the UMS Framework: Essential Elements**

In order for the UMS to reduce the “noise” surrounding micro-credentials for employers and learners, the proposed ***Micro-Credential Pathway framework*** should be branded and be consistent across all seven campuses and beyond. Introducing too many similar sounding badges will only increase confusion when assessing value. Our goal is to create pathways that can be implemented on any campus that would hold their value no matter where the badges were issued. Micro-Credential Pathways will incorporate three badge levels and a culminating meta-badge, as well as stackable “micro-badges.” The framework is outlined below. The pathway name will be agreed upon and the badge description, criteria, and acceptable evidence will be consistent. UMS Micro-credentials will be part of an aligned micro-credentialing eco-system across the State of Maine.

The UMS Pathway Framework will meet both business and industry needs and prepare engaged learners while helping them to develop highly marketable skills. A combination of a degree, experiential/applied learning, and stackable, competency-based credentials will put UMS students in a great position for lifelong learning and future job success. This framework endorses university-employer partnerships to aid in preparing learners to be successful in a dynamic, ever-changing world. Rigor and quality assurance are essential components of the framework.

***Unique Micro-Credential Framework:*** Discover. Learn. Apply. Succeed.

The University of Maine System micro-credential pathway framework takes a unique approach to building pathways to higher education and employment opportunities. It is our view that competency must be developed over time, with ongoing feedback and reflection built-in to the structure. This flexible, collaborative framework sets UMS apart from other known micro-credential frameworks. With its attention to real-world application, our branded micro-credentials will instill trust and gain accepted value with employers and other stakeholders.

The following list highlights the basic elements of this framework:

- Incorporates three levels of stacked badges within a pathway structure that leads to a credential of value/meta-badge
- The three levels and meta-badge offer a developmental and unified, stable structure
- Granular, micro-badges can be stacked into our UMS micro-credential pathway badges for added value. Micro-badges can include external micro-credentials/badges, professional and industry credentials, UMS badges, and other badged and valued learning opportunities
- Stand-alone micro-credentials/badges can be developed, offering granular skills or training verification and a nimble way to meet ever changing demands. Once stacked into the pathways they can become part of obtaining a UMS pathway micro-credential
- UMS micro-credentials will be Incentivized by employers/stakeholders for endorsed value
- A developmental, lifelong learning approach is integrated into the framework. A learner will be able to identify opportunities beyond earning a meta-badge.
- Evidence-based recognition of competencies for technical and 21<sup>st</sup> Century Skills adhering to standards with built-in authentic assessment
- Intentional practice and real-world application to meet learning outcomes and build-in authentic assessment practices
- Collaboration across UMS and throughout the state to align pathways and meet statewide employer needs, reduce micro-credential noise, and help to fulfill the missions of UMS campuses (UMS, MCCS, CTE, DOL, DOC, Youth, etc.)
- Organizes opportunities along pathways that will aid learners in identifying starting points and help to guide them in meeting milestones that will lead them toward the attainment of one or more credentials of value
- Systematizes relevant mentorship for “low stake” employer/stakeholder feedback
- Accommodates both credit and non-credit courses and co-curricular experiences

- Can accommodate a systematized process for Prior Learning Assessment or other appropriate measures of UMS micro-credentials to be recognized for formal credit toward degrees
- Accommodates various learning strategies and methods of delivery including face-to-face, online, and/or hybrid methods
- Accommodates both short-term learning strategies such as 1-3 day training and boot camps and longer duration courses and programs that take one or more years to complete
- Is flexible and can adapt to ever changing needs
- Accommodates multiple target audiences
- Consistent design and brand for easy recognition and trust building
- Aligns well with other state and UMS initiatives
- Aims to create a statewide badging/micro-credentialing ecosystem

There are three basic components to this framework including the primary *Leveled Badges*, *Stackable Micro-Badges* and *Aligned Partnership Pipelines*. The framework builds off the success of the University of Maine's [Engaged Black Bear Digital Badging Initiative](#).

Each pathway will utilize three “levels” of badges and result in a culminating meta-badge. The three levels are designed to will motivate learners to continue along the path and earn a credential of value. The levels are developmental in nature taking learners from basic introductory knowledge and skill building toward leadership positions and application of skills in a real-world setting. Each pathway will clearly delineate its alignment with workforce needs. Employers will be involved in the development of the pathways as well as in providing incentives and ongoing feedback. Involving employers at the beginning stages will increase badge value within the hiring process and beyond. (Please see the Employer Engagement section below).

Overview:

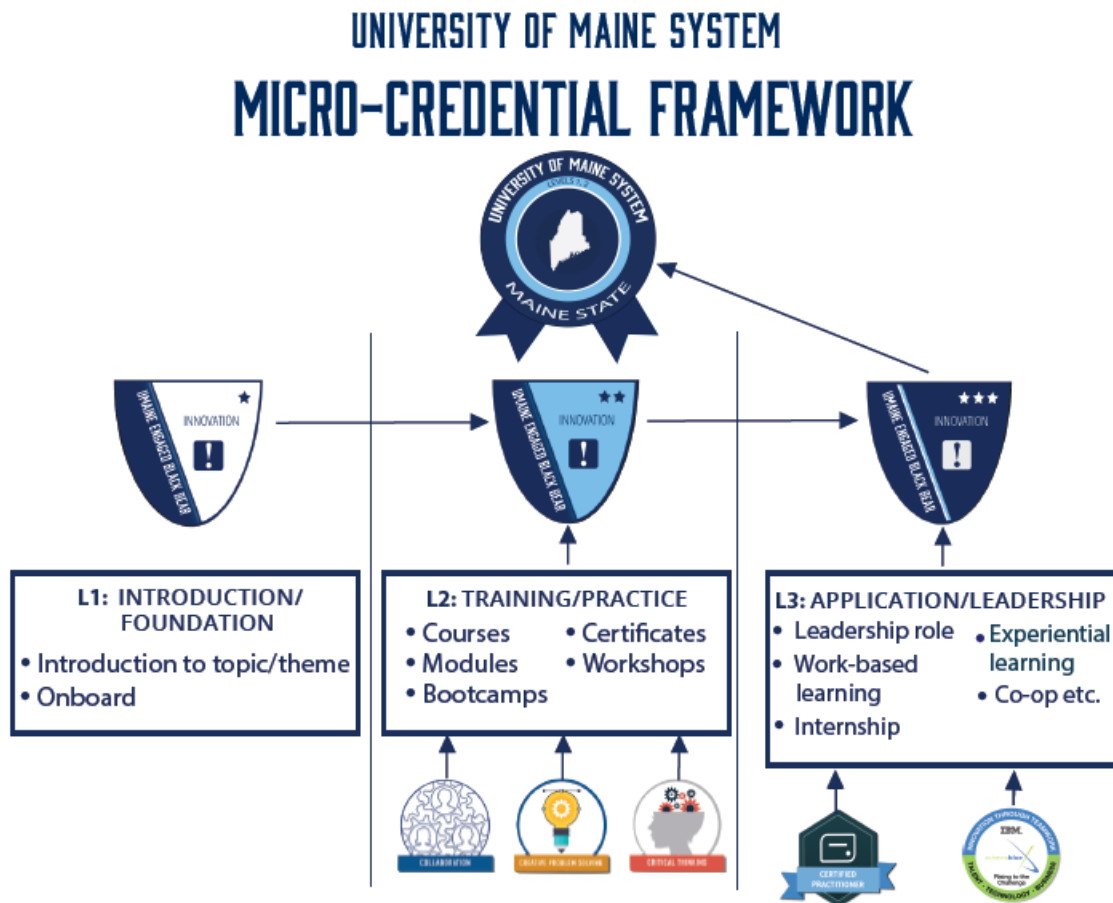
**A.Three Leveled Badges** leading to a Meta-Badge/Credential of Value:

**These badges are**

- Level 1: Introduction/Foundation
- Level 2: Training/Practice
- Level 3: Application/Leadership in a real-world setting
- Meta-Badge/Credential of Value: Culminating badge – Level 1, Level 2,Level 3 badges are stacked into the meta-badge. Authentic assessment demonstrates a high-level of competency in selected skills sets. We propose that the meta-badge be offered at the



University of Maine System, pending all approvals and solved accreditation issues.  
Criteria to meet a “Credential of Value” standard must be demonstrated.



### What is a “Credential of Value” in the State of Maine?

In the State of Maine, a "Credential of Value" must meet workforce needs.

- Validated by an employer
- Lead to employment opportunities

The UMS framework is designed to support and aid in meeting the statewide attainment goal of 60% by 2025. In order to meet this standard, UMS Pathways will define “industry recognized credentials” important to the completion of each pathway and associated employer partners. Built-in stackable, granular badges and/or short-term credentials will help a learner take the steps needed to achieve the pathway meta-badge.

## B. Stackable Micro-Badges

Micro-badges are flexible and nimble, designed to be used and/or taken down as workforce and learning needs change.

- **Granular Micro-badges** can be stacked into any badge within a pathway and can also serve as a stand-alone, granular learning indicator (e.g., 21<sup>st</sup> Century Skill badges).
- **Short-Term Credentials** are modeled after bootcamps and other short duration training opportunities (e.g., industry/Association credentials, IBM badges).

## C. Statewide Aligned Partnership Pipelines

Stacked micro-credentials, (primarily) outside of UMS issued badges, build the pipeline to higher education and employment opportunities across the state. The Maine Community College System and CTE Centers are piloting badge initiatives with similar workforce ready and credential attainment goals. Alignment efforts are underway (e.g., Lumina All Learning Counts Planning Grant, United Technologies Center, Bangor). Formal partnerships are also underway with UMS, MCCC, MDOL/State Workforce Board, Department of Corrections, Maine State Library, and Educate Maine/Maine Spark. Aligning badges across the Maine State eco-system will be important to aid in degree completion; identifying appropriate programs for future development, including building further competency based education programs, as well as early college programs, are critical components of this (e.g., articulation agreements, credits, PLA, etc.). Built-in incentives and badge value are integral to this process.

### *Pipelines to Credentials of Value: Higher Education and Employment Opportunities:*

Although the current development within Maine is limited, we know from our work connected to the report that there are examples under development at some of our campuses, beyond the work of the Engaged Black Bear.

#### **Examples:**

- **Youth:** We are presently building a youth pipeline to higher education and employment opportunities. The University of Maine's Cooperative Extension created the 4-H youth development pathway and other pathways are being discussed (e.g., Early College Programs). United Technologies Center, Bangor has worked on aligning their digital badging initiative with the Engaged Black Bear. Scholarships are awarded to meta-badge earners (currently 2 UTC students have earned \$2500 scholarship to attend UMaine, fall 2019). Several other discussions involving after-school initiatives, camps, K-12 schools, museums, and centers are taken place.
- **Executive Education:** The University of Maine Graduate and Professional Center (aka the Maine Center), in collaboration with Professional Development Programs at USM,

and the Dean of the Graduate Business School, is developing an Executive Leadership Consortium to serve the needs of Maine employers. Curricular planning, with input from senior HR officers from designated employers, is ongoing. The first cohort of participants is expected early next year and will serve as a pilot program for micro-credentialing in executive education. The program will consist of a rigorous 4-5 day intensive training (delivered over the course of 4 to 6 weeks) with the opportunity for micro-badges to be awarded within the UMS leveled framework.

- United Technologies Center, Bangor: Scholarships
- Incarcerated population across the state

**Categories of proposed micro-credential types:**

- **“Minor” micro-credentials:** This framework allows opportunities for learners to acquire “minor” micro-credential post-graduation. A minor micro-credential would offer a way for students to complete “minor” requirements and earn a credential after they have received their diploma.
- **Short-term, Relevant/Valued Topics:** The UMS framework can also allow for bundling of existing coursework to create short-term, themed micro-credentials for non-degree seeking students. Earning these micro-credential may spark further credential earning, contributing to lifelong learning opportunities. Although not the target audience, degree-seeking students may also be interested in the bundled micro-credential, completing it after graduation.
- **Professional Development:** We will aim to stack professional development opportunities to create credentials of value for those seeking professional development opportunities. We will work with CEU credits to incentivize the micro-credentials. UMS training/workshops and UMS Academy offerings may provide content to meet Level 2 criteria along a pathway, when applicable; this could serve as a valuable opportunity to increase credential attainment of our own employees.
- **Employer-Driven:** Market analyses will be conducted (e.g., Burning Glass job description reports and trends) and employers and industry sectors will be brought into the micro-credential development process. Employer engagement is key to building the value of the badges. We aim to build trust in the brand and will ask employers to incentivize the meta-badge for earners (e.g., read resumes, network, informational interviews, internships etc.). An ongoing process for continual employer input and feedback will be implemented. Pilots will help to validate the value of badges to employers within the state. Relevant reports will also inform pathway development (e.g., Educate Maine/Maine Spark and national reports).
- **Executive Education:** Executive education refers to programs and courses targeted at learners aspiring to take on executive roles or professionals already working in

managerial/executive roles. These programs last between one and six days but can take over a year to complete (part-time). These learners can earn short-term, stackable badges that align along the UMS pathway, leading to a meta-badge over time.

- **Continuing Education/Lifelong learning Pathways:** Personal interest and growth appealing to non-degree seeking students.

***Pathway Development Procedures: Collaboration across the System (and beyond)***

A system of collaboration will be developed to ensure that faculty/staff on each campus work together to create pathways to meet workforce needs. Collaboration is an essential component of this process. The process avoids duplication of efforts as well as the creation of similar sounding credentials. Our goal is to have a unified set of three leveled badges, leading to the meta-badge, which can be used across the system campuses. At a minimum, the partnership will include representatives from interested campuses and one employer (or employment sector as appropriate). Pathway partners will work together to develop a pathway's name, description, criteria, acceptable evidence, and assessment processes. Partnership members will hold regularly scheduled meetings, offering iterative feedback for continual improvement. MOAs will be created and signed. This process aids in quality assurance by mapping out the standards and assessments prior to issuing any of the UMS badges. In addition, there is an approval process for the inclusion of external badges into the UMS pathways.

With this emphasis on collaboration, developing a pathway will take time and effort. This thoughtful process cannot be undermined, if the initiative wants to see real impact and transformative change across the system. With that said, the framework further recognizes that flexibility and the need to be nimble are all essential components for success. Micro-badges allow for this type of flexibility.

**How can the need for nimbleness and structure be accomplished in one framework?**

The creation of micro-badges will provide nimbleness and flexibility, while the pathway badges provide the structure. Micro-badges can be created and taken down as workforce needs demand while the basic leveled structure of the pathway badges will remain intact. Pathway badge meta-data (e.g., description, criteria, evidence) can be "tweaked" as needed to accommodate the inclusion of new partners and changes in need along the way. Changes will be discussed and approved, through a speedy approval process. These types of alterations are, in many ways, similar to changes made in an academic course or program of study. This system is fluid, yet structurally stable.

**UMS Micro-Credential Target Populations:**

The following represent those populations to which micro-credentials could be promoted and marketed.

**1. Degree-Seeking Students** (Traditional Undergraduate and Graduate Students):

- Student engagement
- Leadership
- Career Readiness
- 21<sup>st</sup> Century Skill Development

**2. Adult Learners:** The different categories of adult learners who will benefit from our development of micro-credentials are below.

- Non-traditional degree seeking students
- Some college, but no degree
- Lifelong learning
- Upskilling, reskilling
- Continuing Education/Professional Development

In addition, the UMS was selected to complete a Lumina *All Learning Counts* Planning Grant (due June 21, 2019) based on a submitted RFI. The focus is on aiding adults 25 years of age or older to earn credentials of value with specific focus on underrepresented populations, incarcerated, low-income, veterans as examples. UMS is organizing this statewide effort. Micro-credentials are being developed to aid multiple populations, including the incarcerated (UMA, EMCC).

**3. Post-graduation and Other Interested Learners (Continuing Education /Professional Development/Lifelong Learning):** We will aim to more fully develop and connect various lifelong learning initiatives across the system, facilitating alignment of programs with employer needs.**4. Youth:** Building a pipeline to higher education and employment through digital badges.**The following digital badges and pathways can be scaled across the system:**

- Engaged Black Bear pathways
- Granular Badges: Education Design Lab: 21st Century Skills pathways

### **Assessment and Validation**

It is important to track and assess the impact of micro-credentials in several key areas:

- Impact on students (e.g., retention, graduation, employment outcome, skill development, learning outcomes)
- Impact on employer acceptance, the role of micro-credentials have within the hiring process, satisfaction with hires, and value of the credential over time.
- Impact on the Institution: Revenue generation, student success, building the pipeline to the institution.

Assessment and tracking will include:

The number of badges issued, the number of shared badges on social media, the number of employers directly engaged in the development of the pathway and their use, the impact on developed skills on the workforce.

Badges go through a rigorous validation process to ensure credibility and build trust among the stakeholders. Evidence is submitted and vetted by faculty/staff to ensure rigor and to determine if the criteria for earning the badge has been met. Higher level badges require higher level work and associated evidence; those criteria are built into the badge descriptions.

UMS will work with the Chief Academic Officers, campus online or instructional design units (e.g., UM's DLL or CITL, UMA's ID unit, USM's CTEL), and Offices of Institutional Research/Assessment (System and campus-based) to develop a strategic plan, continue to assess the impact of badges through a data gathering process that will include employer, issuer, and earner surveys. Focus groups and interviews of key personnel will also take place, when appropriate. Employers/industry Sectors will have multiple opportunities to offer feedback into the planning process.

Pilot pathways will be assessed through After-Action Reviews, considering expectations, process, and outcomes. The review will provide guidance with the initiative moving forward. Employers will be part of the pathway development process. It is essential to have an ongoing feedback process in place to ensure that the micro-credentials issued throughout UMS remain up-to-date and valued by Maine employers and beyond. Engaging employers in the initiative may be shown to reduce training, recruitment and hiring costs for employers. Expected employers return on investment must be clearly articulated and actual ROI an economic impact must be tracked. Tracking progress along the pathway, completion of a meta-badge, and continuing on to advanced credentials should be tracked within the digital badging data system. The effectiveness of UMS-employer partnerships must be assessed over time. Data will provide valuable insights to improve the pathways and the initiative as a whole.

### **Connecting and Engaging the Employer Community**

The Workforce Innovation and Opportunity Act (WIOA) emphasizes strong employer partnerships to better meet goals. Micro-credentials help employers identify job candidates who have the skills they are seeking and can serve the needs of a changing workplace. Employers can also request micro-credentialing programs to solve workforce challenges and upskill employees, providing needed training to their employees. Micro-credential pathways can aid in training professionals to meet specified standards of the industry/profession.

UMS will tap into the multiple employer associations and committees throughout the state, and employer advisory committees within the UMS, to obtain input and feedback. Employer engagement “best practices” will be followed to meet these objectives. Trying to find commonalities across industries may be one way to identify what those key skills are and tools like Burning Glass and EMSI are tools that can cut across jobs and occupations to look at the skills most in demand by the labor market.

With interest, an employer leadership committee may be formed. Determining who within UMS has relationships with potential employer partners will aid in the partnership building process, and involving key campus representatives (for example, campus core curriculum committee leads) in the employer leadership committee would demonstrate responsiveness to the needs of the employer community as well as be an important representation of the UMS commitment to the micro-credential initiative.

Members can address their workforce needs by training and retaining their workers and by hiring graduates with earned badges. Employers will benefit from obtaining real-time labor market information (e.g. Burning Glass or EMSI reports); they will have the opportunity to meet with other employers and identify common concerns in their sector.

An employer can help build program capacity through internships, mentoring, job site tours, networking events, on-campus guest speaker/panel discussion, informational or mock interviews, and curriculum/pathway review. Potential micro-credential learners (UMS students and beyond) will be informed regularly about opportunities with engaged employers, in order to increase interest in badges. Likewise, employers will be updated regularly about numbers of UMS/beyond learners in the pipeline to earn multiple levels of badges/meta-badges.

Resolving the dilemma of workforce experience for new graduates requires that our micro-credential initiative includes some meaningful, real-world experience. Our pathway design requires employer hosts (Level 3) where possible and practical. Hosting students offers the



opportunity for employers to get to know potential employees and to discover a potential long term hire. It is important to ask employers what kinds of on-the-job opportunities they would consider providing. We would seek to have employers endorse and/or sponsor specific, relevant pathways and recognize the badges earned. Employers may contribute financially for training opportunities or may choose to enter into a contract agreement and pay for employee training to meet ongoing needs. Obtaining buy-in from the leaders of the organization will be important, sending a valuable message to their employees (e.g., chief executives, business owners, and department heads/program managers, especially those in HR. A goal would be for employers to guarantee resumes reads and offer interviews to meta-badge earners. For example, Northern Light Health and Bangor Savings Bank offer to read all resumes of students who have earned the Critical Thinking Badge, offered at UMaine. Developing a financial framework involving employers will aid in the sustainability of the initiatives. Strong partnerships will build student mentorship relationships and authentic assessment of skill mastery (built into Level 3 badges).

### **Integration with Other UMS Priorities**

As stated earlier, this initiative is closely aligned with several UMS priorities already underway (our ADC work, Early College, Workforce Engagement, work of the Maine Center, etc.). In addition, our hope is that as the opportunities presented by micro-credential development evolve, that these opportunities can do so in the same “multi campus” collaborative manner envisioned within some of our current work. Further, the concept of multi campus students, most specifically the reality of a student’s educational record being comprised of course work from multiple campuses, is especially well served by micro-credentialing and the opportunity to build a digital educational transcript which represents their learning across organizations and within higher educational institutions.

Connected to our adult degree completion priorities, we already have two significant faculty and professional development activities which will provide an opportunity for the addition of best practice learning connected to micro-credential development (the E-Learning Institute based at UMA and the SAALT Institute). We also are in the process of adding a position with marketing expertise (called for within the ADC report) which can also provide insight into the communication and marketing needs of this project.

Our work with Maine Spark and Maine Adult Promise (one of four strategic foci of Maine Spark) closely tie into this initiative, and our participation in the national pilot of Credential Engine (a national credential platform being developed and supported by the Lumina Foundation) is an

important connection to developments within the credentialing frame occurring nationally and to best practice approaches being employed in other states.

Also at the state level, the UMS has received a planning grant from the Lumina Foundation (through the aforementioned “All Learning Counts” grant initiative) to develop a full grant that would enable a pilot of how some of these micro-credential and alternate credential concepts could translate at a broader state level. Partners include the UMS, MCCC, Department of Labor, Department of Corrections, Maine Adult Education and the State Libraries.

At a more local level, the ultimate platform selected for our micro-credentialing work must closely align with whatever platform is selected for the learning management system (LMS) which will enable those developing micro-credentials to have a set of familiar and interoperable tools. There are many logical and connecting strands across the range of UMS priorities, an integration that, if done carefully and thoughtfully, could result in a far broader concept of workforce engagement and development for the UMS.

### **Recommendations**

The ultimate implementation of a comprehensive digital badging initiative across the UMS, and potentially across the state, will call for a series of deliberate steps to build capacity and knowledge. Our preliminary recommendations are below and will be expanded upon as a part of the development of a comprehensive strategic implementation plan to occur over the summer 2019:

1. Implement and Pilot a Framework for Micro-credentialing: Refine the proposed framework for micro-credentialing which is flexible and adaptable into the future given the evolving development of the field. This framework should be able to accommodate both non-credit and credit [technical and 21<sup>st</sup> century] skill and competency digital badging leading to stackable credentials across the continuum of credentials of value (badges or other micro-credentials to meta credentials to courses to certificates and degrees). This framework will:
  - include potential for both undergraduate and graduate micro-credential development, including but not limited to executive education programming being developed by and pathways developed as a part of Early College and other youth development programs;
  - enable both internally developed micro-credentials as well as those delivered by third parties;
  - enable collaborative, shared delivery across our campuses.
2. Institute a design process associated with micro-credentialing: Contract with Education

Design Labs to work with the entire UMS in the design process to include 21<sup>st</sup> century skill development, skills mapping, employer engagement and best practices for faculty engagement.

3. Formalize the Micro-Credential Advisory/Steering Committee for the development of systems and structures: Form an ongoing Micro-credential Advisory/Steering Committee which will be charged with further developing formal systems and structures that will help our respective institutions value the work and see a clear path to implementation, involving a broad group of campus stakeholders - faculty, academic programs, professional development units, career counselors, PLA, internships, instructional design, information technology. These systems and structures include but are not limited to:

- Determination of appropriate structural/functional placement within the UMS,
- Oversight and management,
- Development of uniform processes by which micro-credentials can be recognized for formal credit within competency-based education (CBE) platform programs as well as traditionally delivered programs,
- Quality assurance,
- Implementation of platform,
- Development of faculty and professional learning experiences,
- Structure for employer outreach,
- Promotion and marketing to employers, faculty, staff (including but not limited to career services/development, enrollment management/admissions), potential and current students,
- Determination of appropriate fee structure,
- Identification of cost support for students,
- Development an implementation, ongoing assessment plan and long-term sustainability plan with clear timelines and resource needs (implementation begins fall 2019).

4. Develop a common glossary/vocabulary: Develop a common vocabulary across the UMS and with employers for all elements of this initiative (see appendix for example).

5. Develop Coordinated Workforce Micro-Credentials: Building off statewide work already in process, national work through Credential Engine, and in collaboration with K-12 and other postsecondary educational partners, existing businesses, non-profits and community partners, develop coordinated workforce micro-credentials that are relevant and recognized in the workplace.

- Use Burning Glass (or similar) labor insight and program insight skills data as background for industry-based focus sessions with employers to “ground test” the skills and competencies needed.

- Identify commonalities across industries and occupations;
- Use secondary data to determine that set of skills that are in demand, have value in the labor market and the System can deliver and build programming around.
- Engage with employers and industry organizations and other networks (identified through our faculty and staff who have reach across the state) to discover the skills of the future that will be demanded. When an industry association or advisory committee does not exist for a specific sector, employer advisory committees will be established.
- Develop programs within the UMS that are responsive, nimble and adaptable to changing demands over time.

6. Identify “targeted opportunities” for stackable credentials: Identify targeted opportunities for development of stackable micro-credentials that are aligned with the needs of the non-traditional/adult population and their employers, and which will include “families” or “clusters” of skills/competencies from which students can choose. This same approach can also be used to serve the needs of traditional students. A possible opportunity for development of this idea could be within the core curriculum. This category of micro-credentials:

- may be regionally-based or statewide,
- must be available in an accessible and affordable format in order to enable remote credentialing opportunities across the state;
- needs to focus on the geography of the state and mirror the industry sector needs to that geography.

7. Identify and select a single platform: Identify the requirements needed for a robust and sustainable platform that provides learners with a single account for activity at multiple campuses and units across the state, initiate the RFP process and select a vendor for use by all campuses of the University of Maine System. The selected system must be interoperable with other badging systems and with national credential platforms (such as Credential Engine), and preferably must accommodate “stackable” pathways.

- Ensure that the LMS selected for UMS can accommodate a digital badging frame work.

8. Develop the concept of a Comprehensive Learner Record: In the long term, explore the development of a Comprehensive Learner Record/Extended transcript which would capture all coursework toward a degree as well as all micro-credentials. The University of Maine at Presque Isle is currently participating in a pilot project, co-sponsored by AACRAO and Lumina, designed to develop and implement a comprehensive learner record; their work on this pilot will be invaluable in our work within the UMS.

9. Develop a Plan for Communication, Education and Professional Development: Identify opportunities for development of faculty and professional staff adoption and knowledge enhancement related to micro-credentials:

- Develop a communications and professional development plan for internal stakeholders to promote the concept of micro-credentialing and its value in enhancing student outcomes and employability, and for potential and current students to encourage them to take advantage of these additional opportunities. The first stage of such a plan would be the roll out of this report and recommendations. Stage two would be the implementation plan (Summer 2019). Stage three would be ongoing updates of work in progress and roll out of new micro-credentials.
- Develop a series of faculty and staff professional development opportunities connected to badge and micro-credential development.
- Identify and make available a series of instructional design tools and techniques to enable development of badges and micro-credentials, including but not limited to clear policy and process guidelines to ensure aligned development across the UMS.
- Develop an incentive program to enable innovation within micro-credential development and to promote and expand buy in and adoption. Ideas specific to this could include the integration of micro-credentialing into new program planning and existing program review processes. “Licensing” arrangements where a developed badge/curriculum could be shared across campuses and be used to spur on new development serves as another example.
- When a critical mass of micro-credentials are available, develop a communications plan for external stakeholders specific to their availability and value in the workplace.

10. Ensure a linkage between Academic and Career Services: Establish a clear linkage between academic and career services earlier in a student’s career and incorporate skill/competency development as potentially one required component of a student’s academic and/or co-curricular program.

11. Develop a financial model that explores multiple options to address sustainability and long term funding: Identify and pursue appropriate grant and philanthropic funding for this Systemwide and, ultimately, statewide initiative, including strategic partnerships with the business and philanthropic community. Additionally, identify opportunities for revenue generation associated with micro-credential attainment (ex. Non-credit opportunities which result in micro-credentials or more comprehensive meta-credentials, etc.)

## Timeline

The following timeline is preliminary. A comprehensive implementation plan with associated timelines will be developed over summer 2019.

- Report and recommendations to BOT May/June 2019
- Implementation, assessment and financial plan developed by Fall 2019
- Organizational structure in place and formal systems and structures determined Fall 2019
- Discussions underway with employer community and campus stakeholders Fall 2019
- Identify pilots Spring 2020 for Fall 2020 implementation
- RFP for platform and selection Summer-Fall 2019
- Continuing implementation with internal and external stakeholders - Ongoing

## Resource Needs

The following resource needs are preliminary at this time. They will be further refined, and more specific dollar amounts will be assigned, as the comprehensive implementation plan is developed. In order to begin moving forward with this initiative, initial “start-up” costs would be for staffing (Director/Coordinator), developing the design parameters with Education Design Lab, and the selection and implementation of a credentialing platform.

### **Personnel:**

- UMS Micro-Credentials Director/Coordinator,      Approx: \$125K-\$150K
  - Work with internal and external constituencies
  - Develop Assessment/Tracking team
  - Train faculty/staff, offer support, badging platform and issuing oversight etc.
- Phase 2: Add Assistant Coordinator (titles to be determined) and Staff (budget, administrative support, etc.).      Approx: \$150K
- Communication and Marketing Specialist (in Phase 1, this would be in concert with UMS Marketing/ Communications)      System Marketing Specialist
- Campus coordinators for micro-credentialing (organizational chart and reporting responsibilities; release time or stipend)      \$5K-\$10K depending on campus size
- Compensation for issuers      Unknown at this time
- Project manager for grant coordination and aid in reporting (in Phase I this may be the Director/ Coordinator) – *assumes receipt of grant funding*

**Operating/Non-Personnel:**

Operating Budget	\$10-\$15K
Includes travel, marketing & promotion, event tabling, meetings with employers, etc.	
Professional/Faculty Development (ex. UM CITL, USM CTCL, SAALT, E-Learning Institute, etc.)	Approx cost: \$50-\$100K
Design parameters: Education Design Lab	Approx cost: \$100K
Instructional design	Approx cost: \$25-50K
Platform contract - one time and ongoing/maintenance (depends on RFP results)	Approx cost: \$150-\$200K

**Barriers**

A project such as this carries with it some obvious obstacles. While the list below is in all likelihood not complete, it is representative of the larger issues that will need to be fleshed out and resolved as we move forward with our micro-credentialing initiative. We have indicated possible solutions for all barriers identified.

*Multiple initiatives underway which require faculty buy-in and participation:* An innovation incentive fund with clear outcomes could encourage participation.

*Lack of faculty and staff understanding and adoption of alternate approaches to curriculum development such as micro-credentials:* This will need to be a part of a phase-in approach and both a communication plan and faculty and professional development opportunities will need to be in place. Providing the instructional design teams across the campuses with a clear charge around micro-credentialing, and providing the professional development to support it, will be an important addition to this work and will help reduce barriers to adoption.

*Fragmented UMS understanding of the needs of the employer community:* First-hand understanding of employer and workforce needs remains a challenge for UMS, and requires systemic processes for interaction with such employers, as well as partnerships with all state and non-governmental agencies, to ensure ongoing and meaningful alignment between academic programming and workforce needs. Our work with the Credential Engine project and our own project related to micro-credentialing demonstrates that this is an issue nationally, and one which will require extensive work within and across industries and regions to best determine the skills and competencies employers need. This can be resolved by a comprehensive engagement plan with Maine employers as described earlier within this report.



*Fragmented employer understanding of micro-credentialing and credentials in general; employer articulation of needs and identification of skills/competencies and appropriate credentialing:* Engage with employers, industry organizations, leverage networks (through our own faculty, professional staff who have reach across the state). Identify where these relationships exist, involve them in the determination of what skills/competencies need to be validated and this will help design a process that can help construct training and educational programs that will deliver value in the labor market. This issue could potentially be exacerbated if multiple badging initiatives across the state are developed – working toward statewide alignment will be critical.

*Need for quick turnaround and evolving micro-credentials:* What are the skills of the future that will be demanded and how can the UMS think about and respond to that in a nimble fashion? The skill demands change very quickly so we need to figure out how to respond quickly and efficiently to the demands of employers – the employment community can be frustrated with the UMS due to the difference in pace of how we move versus how employers need us to move - this will need to be addressed as a part of our micro-credential development occurs.

*Lack of availability of funding to support learners' pursuit of micro-credentials:* Because micro-credentials are not credit bearing in the traditional sense, learners enrolled in them do not qualify for Title IV/Federal financial aid. There currently are no funds specified to support this. As referenced within recommendation #3, determining a source of support for learners will be one of the next step implementation items.

### **Conclusion: Seize the Moment**

This is an evolving, transformational concept within higher education; the framework and recommendations contained within this report are designed to put the UMS at the forefront of this rapidly expanding approach to skill and credential attainment closely aligned with the needs of the state's economy and workforce. Several campuses have already begun thinking about how to develop micro-credentials to best serve their students (at both the non-credit and credit level, representing both 21<sup>st</sup> century and technical skill development); some are mentioned earlier in this document.

The potential of this concept to expand UMS reach into the adult market is obvious – the ability to offer micro-credentials of need by the workforce gives us the ability to meet the needs of adult (and other) learners who may not need a full degree but rather need to evidence specific skill and competency development via micro-credentials and meta-badges. It gives us a way to engage with employers in ways we don't currently engage, and in so doing, to potentially

become their first source for quality micro-credentials for their employees, and to enable them to access all of our campuses via this work.

There will be substantial work required to further refine and implement the framework described, and to build understanding, buy-in, and support from both the employment community and our own internal stakeholders (faculty, staff and students). Saying that, this work has the potential, if done deliberately, thoughtfully and correctly, to provide a significant competitive advantage for the UMS, and to potentially enable it to form strategic partnerships with businesses, third party providers, and funders. Most importantly, it will enable the UMS to implement and execute strategies to provide adult learners and others with affordable, flexible, stackable credential- and degree-based programming that is aligned with the needs of the adult learner population and their employers, and which ultimately serves the needs of Maine's economy and its citizens.

## Appendix

### Attachment 1: Charter

University of Maine System Board of Trustees  
Declaration of Strategic Priorities to Address Critical State Needs  
Charter  
Micro-credentials for the Maine Workforce

Background -Maine has established a statewide educational attainment goal of 60% of Maine adults ages 25+ having a post-secondary degree or a vocationally significant credential by 2025. Projections through 2026 and beyond clearly show a major shift toward a workforce that has at least some post-secondary education. Toward this end, the University of Maine System (UMS) Board of Trustees (BOT) issued in December, 2018 a *Declaration of Strategic Priorities to Address Critical State Needs* to guide the UMS in 2019 and beyond. In the *Declaration*, Goal 1: Advancing workforce Readiness and Economic Development and Goal 2: Increasing Maine Educational Attainment require the following actions from the UMS and its campuses:

- "In collaboration with existing businesses, non-profits, and community partners, UMS will develop coordinated workforce micro-credentials that are relevant in the workplace for economic advancement and expansion."
- "The VCAA in coordination with campus leaders and , as appropriate, ...will develop by May 2019 regionally-focused credentials for current employment needs for all priority populations (including, but not limited to veterans, rural populations and new Mainers) that can be quickly adapted to future needs."
- "implement and execute strategies to provide adult learners with affordable, flexible, stackable credential- and degree-based programming that is aligned with the needs of this learner population and their employers. These strategies should identify target opportunities for the immediate development of appropriate program delivery modalities and credential development, priority external partnerships (e.g., DOE, DOL), and the needed resources and funding sources. A report of implement and execution status will be provided for the March 2019 Board meeting."

Although these are ambitious goals and deliverables, work has already begun in multiple arenas to address the need for a UMS system of stackable micro-credentials to serve the educational needs of Maine. For example, the following activities are currently underway:

- Current MOA collaboration with NEBHE and the Lumina-funded initiative to publish UMS high value credentials to Credential Engine's Credential Registry;

- Lumina-funded work identifying needed "Rural credentials;"
- Black-Bear Badging, initiated at UMaine, but now extended to other UMS campuses;
- Planning meetings regarding statewide credentialing, including funding requests to support future efforts;
- Executive education offerings through The University of Maine Graduate and Professional Center (aka the Maine Center);
- Current work with digital credentialing platforms (e.g., Credly);
- Emerging work to accelerate UMS Adult Degree Completion strategies;
- Other completed campus work, e.g., USM School of Business micro-credentials, UMF skills modules, and UMPI CBE pathways);
- Already launched statewide discussion of a framework for micro-credentials, involving the Department of Education, Department of Labor, the Maine Community College System, the University of Maine System, and others.

In addition, there is a great deal happening on the national front with regard to credentialing, and the framework that is developed in Maine has to be consistent with those efforts, i.e., Maine should not try to invent their own system, and should ensure that their efforts are consistent with a national strategy for micro-credentialing.

Given the variety of efforts described above related to micro-credentials, meeting the UMS BOT directives will include addressing an array of challenges, including:

- the various credentialing initiatives, as exemplified above, need to be integrated into a single credentialing UMS framework that is easily interpreted by potential students and employers, and is understood by faculty, career officers, student support staff and others responsible for delivering the credential and supporting credential earners;
- a System-wide strategy for delivery of micro-credentials must involve: alignment with national efforts (e.g., Credential Engine), collaboration\* among the UMS campuses for each credential and/or a division of responsibility for each credential by campus;  
*\*must include resolution of administrative/accreditation barriers to collaboration as identified by the VCAA.*
- significant interaction with employers to determine the competencies and skills to underpin UMS micro-credentials;
- development of a single, comprehensive, system-wide, micro-credentialing portal by which users access information and programming;
- a systematic way to communicate the value of each micro-credential to all relevant markets and stakeholders.

**Charge:** The University of Maine System, through the Offices of the Vice Chancellor for Academic Affairs, the Chief Student Affairs Officer, , cooperation with the System campuses, and others, will undertake the following activities in order to provide a status report in March, 2019 and a final report in May, 2019 to the UMS Board of Trustees:

- engage the appropriate organizational entities, within and outside the UMS, in the development of the scaffolding of skills and competencies for an easily understood hierarchy of micro-credentials for the state of Maine;
- use the ongoing work funded by Lumina regarding needed credentials for rural areas as a stepping stone for further surveying the needs of employers;
- propose a modular credentialing framework composed of families of competencies from which learners can choose;
- collaborate with the CAOs to develop a model for shared delivery of the micro-credentialing platform;
- develop a communications plan to explain the value of micro-credentials to all stakeholders.

**Goals & Deliverables:** The Steering Committee will:

- a) collaborate in the identification of workforce skills as needed through use of existing reports and information and/or interaction with employers and various service providers;
- b) identify and evaluate all existing credentialing strategies within the UMS;
- c) seek to engage faculty as appropriate in this planning process;
- d) coordinate a System-wide - if not statewide -discussion on the essential components of a micro-credentialing strategy that:
  - will serve Maine's workers, employers and service providers,
  - aligns with national efforts to systematize micro-credentials (e.g., Credential Engine);
  - expands pathways to further education and/or employment
- e) recommend a coherent operational structure for micro-credentialing that:
  - strives to include current UMS credentialing efforts;
  - strives to build a larger statewide framework for other Maine higher education partners;
  - encompasses "families" of needed competencies, or a similar strategy;
  - is built on inter-campus collaboration;
  - provides the organizational flexibility to embed current and future micro-credentials within the UMS;

- provides a glossary of essential terms to ensure common understanding;
- f) provide a timeline for implementation with milestones;
- g) identify institutional and System barriers impacting the implementation of a UMS micro-credentialing strategy, offering solutions where possible;
- h) make recommendations regarding development of an informational campaign to describe UMS micro-credentials;
- i) provide recommendations for the development of a UMS micro-credentialing platform, portal and service model;
- j) identify all one-time and ongoing resources necessary to accomplish these outcomes.

Reports and recommendations will be developed to meet Board of Trustees expectations.

**Charter Modification** This Charter may be modified with written approval of the Vice Chancellor for Academic Affairs.

### **Micro Credential Steering Committee**

#### **Membership**

**Report to:** Robert Neely, Robert.neely@maine.edu, VCAA

**Co-chairs:**

Rosa Redonnett, rosar@maine.edu, Chief Student Affairs Officer, UMS

Claire Sullivan, claires@maine.edu, Coordinator of Community Engagement and Associate Professor, UM

**Members:**

Meghan Cadwallader <[meghan.cadwallader@maine.edu](mailto:meghan.cadwallader@maine.edu)> Director of Educational Partnerships, USM

Paul Cochrane paul.cochrane@maine.edu \_ Director of Online Teaching and Learning Center for Technology Enhanced Learning (CTEL), USM, representing ADC Steering Committee

Sheri Fraser <[fraser@maine.edu](mailto:fraser@maine.edu)> Dean of Students, UMA

Grace Garland, grace.garland@maine.edu, Consultant,

Carol Kim <[carolkim@maine.edu](mailto:carolkim@maine.edu)> AVCAIP, UMS

Karen Kimball <[kkimball@maine.edu](mailto:kkimball@maine.edu)> DVCAA, UMS

Lois-Ann Kuntz <[lkuntz@maine.edu](mailto:lkuntz@maine.edu)> Professor, UMM

Heidi Parker <[heidi.m.parker@maine.edu](mailto:heidi.m.parker@maine.edu)> Associate Professor, USM

Raymond Rice <[raymond.rice@maine.edu](mailto:raymond.rice@maine.edu)> President and Provost, UMPI

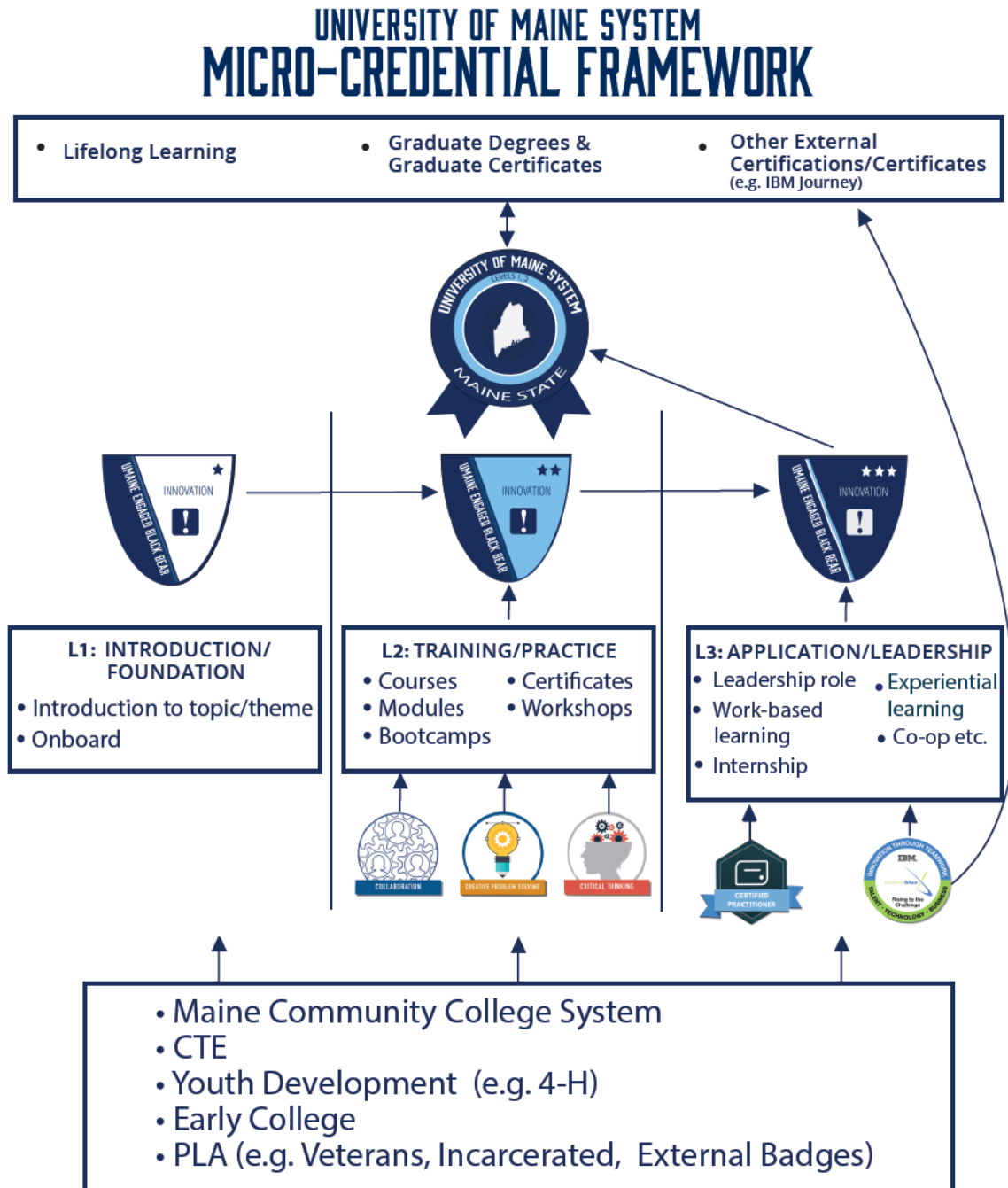
Theresa Sutton <[tsutton@maine.edu](mailto:tsutton@maine.edu)> CEO,

Katherine Yardley <[kyardley@maine.edu](mailto:kyardley@maine.edu)> Interim Provost, UMF

Renee Kelly <[rwkelly@maine.edu](mailto:rwkelly@maine.edu)> Assistant VP for Innovation and Economic Development

Laura Wilson <[laura.wilson@maine.edu](mailto:laura.wilson@maine.edu)> 4-H Science Professional, Cooperative Extension, UM

## Attachment 2: Framework Graphic





### **Attachment 3: Draft Requirements for RFP for platform**

#### **UMS Micro-Credential/Badge Platform Criteria**

##### ***DRAFT RFP Requirements***

- Must live outside any one institution (Cloud-based solution; not an on-site solution);
- Meets best practices: portable, transferable, verifiable, discoverable, stackable credentials (modular; meta-badges; milestones etc.) leading to “credentials of value” (modular) etc.
- Capability for supporting central hosting for campuses [look at software as a service or cloud]
- Interoperable with other platforms
- Pathways and alignment capabilities across systems
- Platform must be IMS Global Certified and Open Badging 2.0 compliant, ensuring employer searchability and access
- Expandable usage functionality and ability for software to be applied to other UMS and campus initiatives
- Both a badge hosting solution and badge issuing platform
- Ability to use Blockchain to award credentials; Potential for expansion into other verifications and certifications; Adaptability to change/alter as the ecosystem builds
- User-friendly graphical user interface to create and issue badges
- Provide dashboard for administrator, editor, issuer, and student dashboards; Ability to report analytics at the campus and System level
- Ability to provide individual as well as site licensing options
- Supports FERPA compliance and COPPA for youth; ADA Compliance; Web Content Accessibility (WCAG Level 2 AA) compliant; Voluntary Product Accessibility (VPAT); other?
- Verifiable, individual URL per badge; easy to verify issuer/issuing organization (trust)
- Provide learners with a single account for activity at multiple campuses and units across the State that would continue post-graduation
- Ability for learners to decide what’s private and what’s public. [Entire badge, not pieces]
- Learners embed their own evidence: Issuers may also embed evidence
- Ability to be included on any extended transcript UMS implements long term
- Ability for students to share credentials on social media such as LinkedIn, Facebook as well as sharing to Backpacks, e-portfolios, on admission or employment applications and the like etc. [Portability is key]
- Integration with real-time labor analytic
- Allow for extensive metadata to document learning outcomes, assessments, and links to student work
- Display UMS co-branding and levels to distinguish credentials that meet the UMS policy but allow for Customization as needed (e.g., white labeling)
- Provides a broad range of user support services (works with UMS to implement and innovate) - provide training and support to all stakeholders at the onset; Additional support/training available as needed

**Attachment 4: Glossary of terms/vocabulary**

**UMS Micro-Credential Steering Committee**  
**Glossary of Terms**

**Badge**

Use of digital technologies to represent learning achievements. Open badges use open standards that support interoperability and connections among systems and contexts. Badges can be created and awarded by institutions, organizations, groups, or individuals. Badges are flexible with regard to how issuers create them, define their use, and develop their criteria (which are publicly viewable, embedded in the badge, and verifiable). Therefore, badges are used to represent granular competencies as well as deeply linked, rich experiences and complex learning. Badges are being used in conjunction with and/or as modular components of traditional credentials such as degrees. Badges can link to evidence and can be used as representations of credentials. Badges can expire or be revoked, making them useful for credentials that are not continuously valid. Given their flexibility, badges bridge traditional, accredited credentials, professional and industry-recognized credentials, and non-traditional, experimental credentials ([Connecting Credentials](#)).

**Digital Badge**

- A digital badge is a validated indicator of accomplishment, skill, quality, or interest that can be earned in many learning environments ([HASTAC](#)).
- A digital badge is an innovative tool for capturing and validating a personalized set of accomplishments. Badges contain information about these experiences, including the criteria for earning the badge and the actual evidence provided by the earner (e.g., papers, videos and web links). Earned badges can be shared on social media sites such as LinkedIn, Facebook and Twitter ([University of Maine Engaged Black Bear Initiative](#)).

**Open Badge**

- An open badge is a digital record of achievement—a verifiable credential that describes specific skills demonstrated by an individual and often includes actual evidence used to evaluate the individual's achievement. Open Badges are a special type of digital badge based on adherence to the IMS [Open Badges technical standard](#), which contains not only a visual image but a set of rich metadata embedded directly inside the image file itself ([IMS Global](#)).

### **Certificate**

- Certificates are awarded upon the successful completion of a brief course of study, usually one year or less but at times longer, primarily in institutions of higher education, university extension programs or non-degree granting postsecondary institutions like area career and technical education schools. Certificates are sometimes issued for participation or completion, other times for attainment of competencies. Certificates are used at many levels of knowledge and skills, ranging from foundational skills to learning at the postgraduate level ([Connecting Credentials](#)).

### **Certification**

- Certifications indicate mastery of or competency in specific knowledge, skills or processes that can be measured against a set of accepted standards. These are not tied to a specific educational program, but are typically awarded through assessment and validation of skills in cooperation with a business, trade association or other industry group. After attaining a certification, individuals often must meet ongoing requirements to maintain the currency of the certification ([Connecting Credentials](#)).

### **Credential**

- A documented award by a responsible and authorized body that attests that an individual has achieved specific learning outcomes or attained a defined level of knowledge or skill relative to a given standard. Credential, in this context, is an umbrella term that includes degrees, diplomas, licenses, certificates, badges, and professional/industry certifications (Lumina Foundation 2015a, 11; NEBHE; [Connecting Credentials](#)).

### **Credentials of Value**

- Lumina Foundation’s working definition for credentials of value: Degree, certificate, or high-quality credential – leads to further education and “high quality” employment.
  - Leads to employment
  - Has labor market value
  - Majority awarded by educational institutions
  - Many who have certificate go on to get a degree
  - Credential of value or “good” certificate = 20% premium above HS medium wage ([MaineSpark](#)).

### **License**

- A license is legal permission, typically granted by a government agency, to allow an individual to perform certain regulated tasks or occupations. Licenses are based on

some predetermined and standardized criteria, involving educational programs of study, assessments, and/or work experience. They are time limited and must be renewed periodically and often carry a continuing education requirement. Practice in a licensed occupation is restricted to those possessing a license ([Connecting Credentials](#)).

### **Micro-Credential**

A credential that recognizes the acquisition of specific skills that is more granular than traditional degrees and other certifications. A digital badge can be a kind of micro-credential ([Educause, July 28 2017](#)).

**Industry-Recognized Credentials:** Industry recognized credentials are a type of micro-credential that can be incorporated into relevant degree programs to add even more value to applied degrees and give students additional portability of learning outcomes mastery. These micro-credentials are sought out by employers because they illustrate that students have attained skills and knowledge that are verified by an assessment created by professionals in the designated field. Students who attain these credentials illustrate that they have mastered professional competencies and colleges with high pass rates are viewed favorably by industry ([The State University of New York](#)).

### **Other Terms**

- **A massive open online course (MOOC)** is a model for delivering learning content online to any person who wants to take a course, with no limit on attendance ([The State University of New York](#)).
- **Career pathways:** The career pathway approach connects progressive levels of education, training, support services, and credentials for specific occupations in a way that optimizes the progress and success of individuals with varying levels of abilities and needs. This approach helps individuals earn marketable credentials, engage in further education and employment, and achieve economic success. Career pathways deeply engage employers and help meet their workforce needs; they also help states and communities strengthen their workforces and economies ([Connecting Credentials](#)).
- **Career Pathway System:** A career pathway system aligns public partners and engages them in a continuous conversation that is led by industry to ensure that job-seekers and students move seamlessly through and among support programs, educational institutions, training opportunities, and work-based experiences to build skills and credentials that meet industry demand and prepare them for jobs and careers ([Colorado Workforce Develop Council](#)).
- **Connected Credentials** are those that can be linked meaningfully with other credentials. The term reflects connections and relationships among credentials, connections to

purpose and value for multiple stakeholders in multiple contexts, and connections to opportunities for credential earners. Connectedness includes several key dimensions, including transparency, modularity, portability, relevance, validity and equity. Connected credentials is a broader term than stackable credentials, also including other forms of connectivity, including lateral, latticed, nested, and other connections ([Connecting Credentials](#)).

- **Comprehensive Learner Record:** The goal of the [Comprehensive Learner Record](#) is to capture a student's complete picture of learning, from the earliest stages of planning to their achievements and competencies. The Comprehensive Learner Record standard (formerly called Extended Transcript) is a new generation of secure verifiable digital records for learners that contain all nature of learning experiences and achievements including courses, competencies, skills, co-curricular achievements, prior learning, internships, and experiential learning. Additionally, the Comprehensive Learner Record may include the learner's plan or pathway towards their goals ([IMS Global](#)).

## Attachment 5: Abbreviated resource list/references

### Micro-credentialing/Alternative Credentialing:

#### Resources and Literature

Last updated March 2019

URL: <https://tinyurl.com/microresources>

For more information, contact [Veronica Diaz](#), Director of Professional Learning, EDUCAUSE

#### EDUCAUSE Resources

- Developing a Higher Education Badging Initiative:  
<http://www.educause.edu/library/resources/developing-higher-education-badging-initiative>
- The Potential and Value of Using Digital Badges for Adult Learners:  
[https://lincs.ed.gov/publications/pdf/AIR\\_Digital\\_Badge\\_Report\\_508.pdf](https://lincs.ed.gov/publications/pdf/AIR_Digital_Badge_Report_508.pdf)
- 7 Things You Should Know About Badging for Professional Development:  
<http://www.educause.edu/library/resources/7-things-you-should-know-about-badging-professional-development>
- 10 Lessons Learned in Launching and Award Winning Digital Badging Program:  
<http://nextgenlearning.org/blog/10-lessons-learned-award-winning-digital-badging-program>
- EDUCAUSE Badging Program: <http://www.educause.edu/badging>
- Micro-credentials and Badging Constituent Group:  
<http://www.educause.edu/discuss/information-technology-management-and-leadership/microcredentials-and-badges-constituent-group>
- 7 Things You Should Know About the Evolution of the Transcript
  - <https://library.educause.edu/resources/2016/1/7-things-you-should-know-about-the-evolution-of-the-transcript>
- EDUCAUSE Badging Resources
  - <http://www.educause.edu/library/badges>
  - <https://library.educause.edu/topics/teaching-and-learning/credentialing>
- Today's Comprehensive Record: An Evolutionary Case Study  
<https://er.educause.edu/articles/2017/7/todays-comprehensive-record-an-evolutionary-case-study>

#### Other Articles and Examples

- <http://www.theaba.org/MOCA/MOCA-Minute>
- <http://connectingcredentials.org/>
- <http://www.credentialengine.org/>
- <https://rework.withgoogle.com/blog/whisper-courses/>
- <http://www.usmd.edu/cai/usm-digital-badging-initiative>
- <https://upcea.edu/pioneering-study-reveals-90-percent-colleges-universities-embrace-alternative-credentials/>
- <https://degreed.com/skill-certification>
- [http://www.nxtbook.com/nxtbooks/smithbucklin/ice\\_digest\\_2017q3/index.php#/12](http://www.nxtbook.com/nxtbooks/smithbucklin/ice_digest_2017q3/index.php#/12)
- Rethinking College, PBS Newshour: <https://www.youtube.com/watch?v=KGdHNTLlcrG>
- Bringing Order to 'Badges': Nonprofit Works With Colleges on Framework to Measure Soft Skills, Apr 25, 2018: <https://www.edsurge.com/news/2018-04-25-bringing-order-to-badges-nonprofit-works-with-colleges-on-framework-to-measure-soft-skills>

- <https://evollution.com/programming/credentials/how-digital-credentialing-is-driving-the-shift-towards-a-learning-economy/>
- [https://www.washingtonpost.com/news/grade-point/wp/2018/04/20/the-top-job-skills-schools-arent-teaching-well-and-its-not-coding-or-math/?noredirect=on&utm\\_term=.91c34a01ff02](https://www.washingtonpost.com/news/grade-point/wp/2018/04/20/the-top-job-skills-schools-arent-teaching-well-and-its-not-coding-or-math/?noredirect=on&utm_term=.91c34a01ff02)
- <https://workcred.org/>
- <https://er.educause.edu/articles/2016/5/credentials-reform-how-technology-and-the-changing-needs-of-the-workforce-will-create-the-higher-ed>
- <http://www.mckendree.edu/offices/provost/assessment/assessmentreport20162017.pdf>
- <https://eddesignlab.org/badgingchallenge/>
- <https://eddesignlab.org/21st-century-skills-badges/>
- <https://wellbeing.gmu.edu/articles/11072>
- <https://eddesignlab.org/2017/06/10-things-weve-learned-badging/>
- <https://sf-asset-manager.s3.amazonaws.com/96945/2/19.pdf>
- <https://www.snhu.edu/about-us/news-and-events/2018/04/snhu-receives-1-million-google-grant-to-design-a-soft-skills-assessment-for-opportunity-youth>
- [https://www.washingtonpost.com/news/grade-point/wp/2018/04/20/the-top-job-skills-schools-arent-teaching-well-and-its-not-coding-or-math/?noredirect=on&utm\\_term=.ceab53ffd3a9](https://www.washingtonpost.com/news/grade-point/wp/2018/04/20/the-top-job-skills-schools-arent-teaching-well-and-its-not-coding-or-math/?noredirect=on&utm_term=.ceab53ffd3a9)
- <https://www.nacweb.org/job-market/trends-and-predictions/expanding-the-academic-record-revolutionizing-credentials/>
- Association badging examples: <https://www.wbtsystems.com/solving-skills-gap-digital-credentials-associations/>
- How Everyone Benefits from Badging: A Guide to Mainstreaming Digital Credentials: Elisabeth Rees-Johnstone | Executive Director of Continuing Education and Professional Learning at OISE, University of Toronto [https://evollution.com/programming/credentials/how-everyone-benefits-from-badging-a-guide-to-mainstreaming-digital-credentials/?utm\\_source=Leading+Learning+Master+List&utm\\_campaign=5a48b27369-Leading\\_Learning\\_Newsletter\\_January\\_2018&utm\\_medium=email&utm\\_term=0\\_b683a1857e-5a48b27369-431342837&mc\\_cid=5a48b27369&mc\\_eid=e27e3526d0](https://evollution.com/programming/credentials/how-everyone-benefits-from-badging-a-guide-to-mainstreaming-digital-credentials/?utm_source=Leading+Learning+Master+List&utm_campaign=5a48b27369-Leading_Learning_Newsletter_January_2018&utm_medium=email&utm_term=0_b683a1857e-5a48b27369-431342837&mc_cid=5a48b27369&mc_eid=e27e3526d0)
- How Digital Credentialing is Driving the Shift Towards a Learning Economy: Louis Soares | Vice President of Strategy, Research and Advancement, American Council on Education [https://evollution.com/programming/credentials/how-digital-credentialing-is-driving-the-shift-towards-a-learning-economy/?utm\\_source=Leading+Learning+Master+List&utm\\_campaign=5a48b27369-Leading\\_Learning\\_Newsletter\\_January\\_2018&utm\\_medium=email&utm\\_term=0\\_b683a1857e-5a48b27369-431342837&mc\\_cid=5a48b27369&mc\\_eid=e27e3526d0](https://evollution.com/programming/credentials/how-digital-credentialing-is-driving-the-shift-towards-a-learning-economy/?utm_source=Leading+Learning+Master+List&utm_campaign=5a48b27369-Leading_Learning_Newsletter_January_2018&utm_medium=email&utm_term=0_b683a1857e-5a48b27369-431342837&mc_cid=5a48b27369&mc_eid=e27e3526d0)
- <https://www.zdnet.com/article/rmit-to-provide-students-with-blockchain-based-digital-credential-platform/>
- Credential engine report, April 2018: [https://www.credentialengine.org/Content/Articles/Counting\\_US\\_Secondary\\_and\\_Postsecondary\\_Credentials\\_April\\_2018.pdf](https://www.credentialengine.org/Content/Articles/Counting_US_Secondary_and_Postsecondary_Credentials_April_2018.pdf)
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[https://www.northeastern.edu/cfhets/wp-content/uploads/2018/12/Educational\\_Credentials\\_Come\\_of\\_Age\\_2018.pdf](https://www.northeastern.edu/cfhets/wp-content/uploads/2018/12/Educational_Credentials_Come_of_Age_2018.pdf)
- The value of micro-credentials and badging needs continual clarification, WCET, Dec 2018:  
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- [The ‘last mile’ in education and training](#). Ryan Craig, 2017
- [How Everyone Benefits from Badging: A Guide to Mainstreaming Digital Credentials](#). Elisabeth Rees-Johnstone | Executive Director of Continuing Education and Professional Learning at OISE, University of Toronto, May 2018
- [Pressed for Tech Talent, Hiring Managers Consider Online Credentialing](#) WSJ 2019.
- Purdue Competency-Based badges: <https://online.purdue.edu/ldt/learning-design-technology/digitalcompetencybadges>
- 21st Century Skills Digital Badging project: collaboration between the Foundation for California Community Colleges and the New World of Work (NWoW) initiative:  
<https://foundationccc.org/What-We-Do/Workforce-Development/Workforce-Services/21st-Century-Skills-Badging>
- Education Design Lab 21st century skills badges: <https://eddesignlab.org/badgingchallenge/>
- University of Maine Digital Badges: <https://umaine.edu/engagedblackbear/>
- PBS News Hour, Giving students a leg up with job skills a resume won't show (2016):  
<https://www.pbs.org/newshour/show/giving-students-leg-job-skills-resume-wont-show>

#### Higher Education Micro-credential Policies & Guidelines Websites

- Griffith University: <https://policies.griffith.edu.au/pdf/Digital%20Badges%20Policy.pdf>
- SUNY: <http://system.suny.edu/academic-affairs/microcredentials/>
- University of Buffalo, Office of Microcredentials: <https://www.buffalo.edu/micro-credentials.html>

#### Created and shared:

**Veronica Diaz, PhD**

Director, Professional Learning

#### **EDUCAUSE**

*Uncommon Thinking for the Common Good*

282 Century Place, Suite 5000, Louisville CO 80027

Direct: 520-975-4977 | [vdiaz@educause.edu](mailto:vdiaz@educause.edu)

LinkedIn: <https://www.linkedin.com/in/veronica-diaz/>

**UNIVERSITY OF MAINE SYSTEM**  
**Board of Trustees**  
**AGENDA CALENDAR**

A working calendar for developing agendas and submitting various reports to the Board has been designed in order to allow maximum planning in organizing presentations and reference materials. The calendar identifies the timetable for submission of items and reports which recur every six to 24 months as well as special reports with specific time lines. It does not include general items which are ordinarily on each Board meeting agenda; e.g., reports and consent agenda. The following agenda is subject to change consistent with scheduling, reporting, and other factors that the Chancellor deems necessary to consider such matters.

The Calendar will be updated and included in the Board Meeting materials on a regular basis.

- JANUARY:**     Academic Affairs  
                     Academic Year Calendar  
                     Honorary Degree Nominations  
                     Fiscal Matters  
                     State Research Report
- MARCH:**     Academic Affairs  
                     Tenure Nominations  
                     Tenure Report  
                     Governance/Administration  
                     Board Calendar  
                     Establishment of Nominating Committee  
                     Student Affairs  
                     Spring Enrollment Update
- MAY:**         Fiscal Matters  
                     Budgets and Student Charges  
                     Multi-Year Financial Analysis  
                     Governance/Administration  
                     Election of Board Officers  
                     Confirmation of Board of Visitors
- JULY:**         Governance/Administration  
                     Appointment of Standing Committees  
                     Human Resources  
                     Annual Report on Named Chairs and Professorships
- SEPTEMBER:** Fiscal Matters  
                     Appropriation Request
- OCTOBER:**    Fiscal Matters  
                     Review of Annual Financial Report
- NOVEMBER:** Academic Affairs  
                     Awarding of Academic Degrees  
                     Student Affairs  
                     Official Fall Enrollment Update



**Data Science for Biomedicine in Maine:  
Recommendations for Convergent Science  
Initiatives**

A Report to the University of Maine System Board of Trustees

April 26, 2019

Report Co-Chairs:

Scott Delcourt, Associate Vice President for Graduate Studies

Clarissa Henry, Associate Professor and Director, Graduate School of Biomedical Sciences and Engineering

Terry Yoo, Associate Professor, Computer Science

Committee Members:

Ali Abedi, Professor of Electrical and Computer Engineering, Assistant Vice President for Research

Kate Beard, Professor of Spatial Informatics

Nick Giudice, Professor of Spatial Informatics

Andre Khalil, Associate Professor of Chemical and Biomedical Engineering

Penny Rheingans, Professor and Director, School of Computing and Information Science

Karissa Tilbury, Assistant Professor of Chemical and Biomedical Engineering

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# UNIVERSITY OF MAINE CENTER FOR CONVERGENT SCIENCE

## EXECUTIVE SUMMARY

We propose the creation of the Maine Center for Convergent Science (MCCS) as an accelerator for interdisciplinary research to focus and promote ongoing efforts in innovative pedagogy and scholarship. The goal of such a center would be to transform science as usual, incentivizing collaboration across units, and educating a new generation of students better prepared to enter a workplace that will be seeking inventive solutions to society's most difficult problems – the most pressing of which lie at the intersection of data science and biomedicine. A program in convergence research that encompasses student development will generate graduates capable of critical thinking and multidisciplinary problem solving. We cannot deliver and sustain a program for workforce development in data science for biomedicine without comprehensively enhancing our capacity for research and development at UMaine.

*Convergent science is at its core an expansion of the concept of “team science,” where the basic scientist pursuing new discoveries is engaged from day one with the engineer, medical doctor and entrepreneur to seamlessly transition discoveries to impact in the lives of people who most need the innovation. Scientists have performed science for decades in individual laboratories within isolated departments. We have found that integrating discovery science with partners far down the chain of application is essential to speeding the transition of discovery to impact.*

*– Rich Superfine, Chair, Applied Physical Sciences, UNC-CH  
University Gazette, UNC-CH, 17-January-2018*

We recommend both the design of a program to prepare students to thrive in an economy dominated by torrents of data and the establishment of an R & D focal point for economic and professional development in a world where data science is disrupting traditional models for technology transfer. It is the combination of an emerging workforce with digital skills together with a hub for innovative research solutions based on data science that will attract and establish new industry partners throughout Maine.

**Education** – The sidebars of Maine is the degree granting institution for the Graduate School of Biomedical Sciences and Engineering (GSBSE), a statewide education and research consortium dedicated to the training and professional development of graduate students in Biomedical Science and Engineering. Five institutions: the Jackson Laboratory, the Mount Desert Island Biological Laboratory, the Maine Medical Center Research Institute, the University of New England, and the University of Maine comprise the GSBSE consortium. The program offers a Ph.D. in Biomedical Science, a Ph.D. in Biomedical Engineering, and a Professional Science Masters (PSM) degree in Bioinformatics. In 2019, the University of Maine School of Computing and Information Science has submitted a proposal for a Master of Science degree in Data Science and Engineering. In addition, UMaine offers doctoral programs in Computer Science, Spatial Informatics, Electrical and Computer Engineering, Chemical Engineering, and Biochemistry and Molecular Biology with strong research connections to the data and biomedical science areas.

We make the following recommendations to support and expand our interdisciplinary education programs: 1. Expand the existing UMaine Professional Science Master's program in Bioinformatics with support for faculty across the GSBSE consortium. 2. Expedite approval for the proposed UMaine Master of Science degree in Data Science and Engineering. 3. Most importantly, we recommend that MCCS address the college-preparedness of students from the state of Maine by developing an educational pipeline that recruits and supports them from high school through post-baccalaureate work. 4. Finally, MCCS should develop a program of meaningful undergraduate research experiences in the digital sciences. Through a combination of summer programs and active mentoring, we will recruit, engage, prepare, and retain students for multi-disciplinary exploration across their academic careers.

**Research** –The University of Maine has a comprehensive complement of STEM research and development programs. In order to leverage this portfolio, we make the following recommendations: MCCS initiatives should be designed to cultivate and attract public and private research grants and contracts across all the digital sciences, but particularly at the intersection of computing and biomedicine. The goal would be intense outreach for public funding with the aim of making the state of Maine more competitive nationwide for federally funded research.

**Translation** – The process of translating discoveries in basic and applied research through development to commercialization can be eased and accelerated through industrial partnerships with businesses both small and large. We recommend that MCCS develop strategies for engaging corporate partners by creating student internship opportunities,

structured co-op programs combining classroom-based education with practical work experience, and corporate capstone projects engaging graduate and undergraduate students with company partners. We anticipate strengthening research and development partnerships with existing organizations such as the Jackson Laboratory, the Mount Desert Island Biological Laboratory, and the Maine Medical Center Research Institute. The focus of these connections will be made across research in metabolism, immunity, and healthspan (health throughout one's lifespan).

To achieve these goals, we recommend a phased development plan over ten years. This process will be a combination of traditional as well as inventive staffing strategies along with crucial capital investments.

**Emerging Recommendations:** First, we recommend authorization for three tenure-track faculty lines for MCCS as early as August 2019, with 15 new tenure-track faculty lines eventually to be approved over five years. Hiring should be based on convergent STEM research capability. Second, funds should be appropriated to develop a healthy ecosystem of postdoctoral fellowships, graduate student scholarships, non-tenure-track research faculty, and staff for grant development and corporate outreach. The establishment of Federal funding will depend on professional student development and supporting administrative staff.

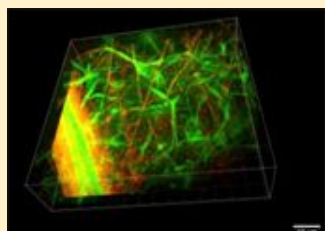
Third, by the beginning of year three, MCCS should be funded and authorized to begin planning new facilities for classrooms, laboratories, and other infrastructure. The design of modern research spaces will help to attract top talent and corporate interest to the state. Finally, by the beginning of year four MCCS should be authorized to undertake a capital campaign to construct its planned facilities. UMaine is a vital research enterprise upon which an initiative such as the Maine Center for Convergent Science can foster economic engagement in a digital economy.

## Introduction

Fifty years ago, faced with shrinking industries in textiles, agriculture, and furniture production, visionaries among universities, local communities, and the state government of North Carolina helped to establish the Research Triangle Park, RTP. Owned and managed by a non-profit organization, the Park provides a focal point for collaborative research and an accelerator for economic growth. The corners of RTP are three leading universities that provide corporations with a skilled workforce. This combination of a culture of innovation and entrepreneurship along with an active outreach to the technology industry has promoted North Carolina to one of the leading state economies, ranked in 2018 in the top ten in economic health.

### Energy Balance Collaborative

Kristy Townsend  
Karissa Tilbury, UMaine



Second harmonic generation imaging of adipose tissue innervation (Green) and collagen (Red) by Tilbury lab.

The goal of the energy balance lab is to investigate neural innervation of adipose (fat) tissues in order to better understand how adipose tissue communicates with the brain to maintain energy balance. Specifically, neurobiology and molecular biology experiments examine how the extent of nerve supply to adipose tissue changes, either dying back with metabolic diseases like diabetes or with aging, or undergoing plasticity and remodeling after certain stimuli. Karissa Tilbury uses second harmonic generation imaging in order to visualize collagen structures along with nerves and Andre Khalil computationally analyzes the extent of overlap between nerves and collagen. The convergence of bioscience, biomedical engineering, and computational analyses allows complex questions about metabolic health to be answered.

In the current day, the state of Maine is likewise facing economic challenges. 15-year projections predict a decreasing working age population and a deficit in trained workers with skills in Science, Technology, Engineering, and Mathematics (STEM) disciplines, particularly in machine learning, analytics, and other fields crucial for an economy built on data science. In 2016, the University of Maine System Board of Trustees adopted Primary and Secondary Outcomes to meet its commitment to supporting the educational and economic needs of our state. In the current fiscal year, the Board further declared priorities, refining the declaration of outcomes with a list of four strategic goals. In response to Strategic Goal 3, this report is intended to demonstrate the academic preparedness and responsiveness of the University of Maine for “establishing interdisciplinary programs with innovative pedagogies that prepare students to engage in key areas emerging for the growth of Maine’s digital economy.”

### Research and Economic Development

Although indicators forewarn that we must answer the concerns of a decreasing population with educational initiatives that provide a more capable digital workforce, it is worth noting that innovation, the generation of developable ideas, is essential to economic development. Skills alone will not improve the state or the national economy. While the availability of skilled labor in digital engineering is a necessary condition for economic progress, it is not in itself sufficient to guarantee growth. If skilled labor is all that is required, our jobs will be outsourced to China or India where growing skills are available and labor costs are lower.

The success in North Carolina is found in the combination of universities providing skilled workers, contributing research and development, and partnerships with industry. Workforce development is critical, but embracing research is equally important. After all, the initiative was named *Research Triangle Park*, not “Employee” Triangle Park.

### The Power of Convergence

At the same time that the Board was developing their primary and secondary outcomes, expert panels nationwide were elevating the concept of interdisciplinary research to a new level. Interdisciplinary research has been extended and characterized under a new term, *Convergence*. In 2011, an MIT report covered the concept of convergence<sup>1</sup>. Co-author and Nobel Laureate, Philip Sharp stated, “Convergence is a broad rethinking of how all scientific research can be conducted, so that we capitalize on a range of knowledge bases, from microbiology to computer science to engineering design.” In its March 2018, “Dear Colleagues: Growing Convergence Research<sup>2</sup>,” the National Science Foundation, NSF, defines *convergence research* as:



- *Research driven by a specific and compelling problem.* Convergence Research is generally inspired by the need to address a specific challenge or opportunity, whether it arises from deep scientific questions or pressing societal needs.
- *Deep integration across disciplines.* As experts from different disciplines pursue common research challenges, their knowledge, theories, methods, data, research communities and languages become increasingly intermingled or integrated. New frameworks, paradigms or even disciplines can form sustained interactions across multiple communities.

### Muscle and Healthspan Research Collaborative

Clarissa Henry, Sam Hess, Ben King,  
Andre Khalil, Karissa Tilbury, UMaine



Second harmonic generation imaging of live zebrafish muscle fibers

Development and function of skeletal muscle is vital for health throughout the lifespan. Skeletal muscle function enables posture, breathing, and locomotion; and also impacts systemic processes—such as metabolism, thermoregulation, and immunity. Many diseases compromise muscle function and negatively affect health span and quality of life. These diseases include myopathy, cancer cachexia (muscle loss during cancer), and sarcopenia (muscle loss during aging). The quality and quantity of skeletal muscle mass predicts efficient recovery from injuries and graceful aging. The muscle and healthspan research collaborative aims to understand the molecular and cellular mechanisms that underlie muscle health with the goal of translating these mechanisms to future therapeutic interventions. Towards that end the team employs the zebrafish as a vertebrate model for muscle disease. The Henry lab provides the muscle biology and confocal/light sheet microscopy expertise. The Henry lab interacts with Andre Khalil (CBE) and Josh Kelley (MBS) to adopt new image analysis techniques for muscle biology. The Henry lab collaborates with Sam Hess (Physics) to use super-resolution microscopy to study muscle cell membranes. The Henry lab also collaborates with Karissa Tilbury (CBE) to study myosin dynamics in muscle disease. Finally, the Henry lab collaborates with Ben King (MBS) to elucidate the genetic network dynamics underlying muscle disease. Example of a collaborative publication that identified new ways to improve muscle function in muscular dystrophy.

<https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1001409>

The University of Maine System Board of Trustees has charted a course that places a focus on interdisciplinary biomedical research, health-related biosciences, genetics, digital engineering, and data science. Independently echoing those aims, an MIT panel of experts published a report in June 2016 titled, *Convergence: The Future of Health*<sup>3</sup>. The report lays out a comprehensive vision of what convergence-based research could achieve, as well as the concrete steps required to enable these advances. “[Our MIT] faculty are having an enormous impact on biomedical science and this will only grow in the future. Other universities are beginning to evolve along similar paths.” In a 2014 study, the National Research Council set the stage for these findings in their report, *Convergence: Facilitating Transdisciplinary Integration of Life Sciences, Physical Sciences, Engineering, and Beyond*<sup>4</sup>. In the U.S. National Institutes of Health September 2018 workshop, *A Convergence Research Approach to an Effective HIV Vaccine*<sup>5</sup>, participants from biomedical engineering and infectious disease research sought to generate new ideas and approaches toward an efficacious HIV vaccine. The 2016 MIT report further states, “This ‘third revolution’ is already well underway.”<sup>3</sup>

### A Crossroads Without Silos – A Rendezvous for Industry and Academia

Economic stimulus takes many forms. While attracting corporations through tax breaks may work as long as profit is a motive, investment in research universities has long-lasting impacts. The faculty at the University of Maine is already active in substantive research in data science and digital engineering for the biomedical sciences, but we are in need of support, infrastructure, and resources to pursue the deep integration necessary to take the next step toward convergence research.

We are outlining a ten-year program in convergent science that will not only educate the necessary workforce, but also generate developable ideas, connect with industry, and nurture the complex academic ecosystem of students, fellows, and faculty that can recruit federal funding for sustainability. The concept behind this program is the *Maine Center for Convergent Science*. Beyond the cultivation of graduates with digital engineering skills and a commitment to solving hard problems in public health, it is our intention to create a hub for innovative solutions based on data science to challenging problems in biomedicine that will attract and develop new industry partners throughout Maine. The Maine Center for

Convergent Science will be a major contributor to the President's initiative to increase the desirability of living in Maine because this center will educate the workforce, recruit industry partners, and have a broad economic impact throughout Maine.

## Poised for Convergence – People, Programs, and Infrastructure

Modern society's grand challenges can no longer be addressed through a singular disciplinary approach. As technology has evolved and large data sets have become more common across scientific disciplines, the very nature of research has undergone a paradigm shift towards interdisciplinary or convergent research that integrates the ideas and strategies of multiple disciplines. Although convergent research has been employed to address complex problems across a number of areas, nowhere does it show more promise than in the health and life sciences. Researchers increasingly use data science as a lens to make meaning of their research. This field is evolving so rapidly that graduate training (in the form of certificates, masters programs, and doctoral research) will be necessary to ensure that tomorrow's workforce possesses the skills necessary for the job. In spite of University of Maine investments already made in this area, the rapidly growing need for individuals who can navigate seamlessly between the digital and life science spheres will require an even more focused effort to support existing degree programs and research and to be prepared to adapt to future societal needs.

As the state of Maine's flagship research university, UMaine is charged with developing a broad curriculum to support a wide array of economic sectors as well as cutting-edge laboratories operated by expert faculty, staff, and students to seek solutions to the increasingly-complex problems facing us today. Any proposal for a new initiative should face the question, *what has come before?* Before promoting a plan for multidisciplinary research and education, it is instructive to review the breadth and depth of the scientific and engineering assets available.

### People at UMaine

Over the past 20 years, the University of Maine, through investments in faculty and facilities and through strategic statewide partnerships, has created an infrastructure to support interdisciplinary research and education in the convergent areas of digital engineering and the life sciences. Beginning with the National Science Foundation's Integrative Graduate Education and Research Training (IGERT) grant in Functional Genomics in that created a thriving research partnership with the Jackson Laboratory and the Maine Medical Center Research Institute, eventually leading to the creation of a statewide Graduate School of Biomedical Science and Engineering (GSBSE) the University of Maine has developed graduate training opportunities in the biomedical area supported by a faculty exceeding 120 members. More recently, the University has made significant investments in the information sciences area, creating a School of Computing and Information Sciences (SCIS) to help support University research that is increasingly dependent on the understanding of data science and data visualization.

As the GSBSE and SCIS have grown, a number of new graduate programs that span across the digital and life sciences have been introduced through collaboration of faculty from both schools, including graduate certificates in Information Sciences and Geographic Information Sciences; master's degrees in Computer Science, Information Science, Spatial Informatics; and a professional science master's degree in Bioinformatics. Additionally, doctoral programs in Biomedical Science, Biomedical Engineering, Computer Science, and Spatial Information Science and Engineering, as well as related doctoral programs in Biological Sciences and Biochemistry and Molecular Biology support a vibrant and growing research effort in these convergent areas.



Flow-through system for shipboard use that includes several different instruments for biological oceanography measurements (Lee, Karp, Boss)

### Integration of Plankton-Observing Sensor Systems to Existing Global Sampling Programs (P-OBS)

Emmanuel Boss, School of Marine Sciences, UMaine

Global oceanographic programs have mostly focused on ocean physics and carbonate chemistry rather than biology. I participate in several efforts to include biologically relevant measurements. These efforts have been driven by advances in technologies (genomics, imaging, in-situ sensors) that give us unprecedented information on ocean biology in its environment. Analysis of these data require new mathematical tools (such as AI) that can relate the measurement of satellite ocean color (our only global sensing system of ocean biology) on daily time scales.

<https://scor-int.org/group/154/>

*Finding: The University of Maine maintains a comprehensive array of academic units and a talented faculty whose research interests span the range of problems in the biomedical sciences.*

UMaine sustains an array of research initiatives posed by numerous principal investigators. In 2018, research expenditures at UMaine exceeded \$129M, with 80% of those funds raised from foundations and federal sources outside the state<sup>6</sup>. These efforts range from nanometer scale to planetary climate impact. UMaine investigations explore biomedical scientific domains in depth: molecular biology and genomic causes of muscular dystrophy; cellular super-resolution microscopy of muscle tissue; organ-level radiomics and the pathogenesis of breast cancer in mammograms; and population-level studies through the Center on Aging.

Figure 1 considers just the question of imaging technology and its growing impact on healthcare in our society. The miniaturization and ubiquitous nature of digital cameras in mobile devices make possible the delivery of health advice that would have been inconceivable a generation ago. Routine remote sensing data and satellite imagery from weather to agriculture allows scientific analysis at global scales. Conversely, advances in microscopy are allowing us to probe the foundations of life at nanometer scales.

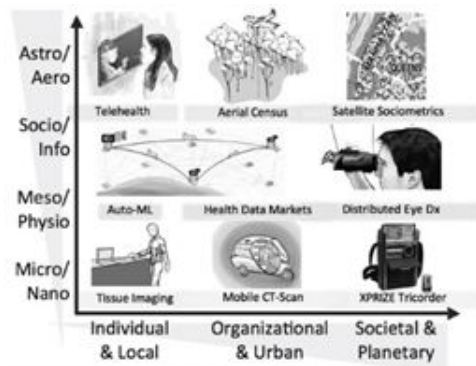


Figure 1: A portrayal of the solution space for imaging in the health sciences. The x-axis is the breadth of the impact from individuals to populations. The y-axis is the general scale of the technology (with permission from Ramesh Raskar, MIT Media Lab).

Figure 2 considers various UMaine faculty and roughly where their research and expertise might lie along these suggested axes of imaging technology and its impact on healthcare.

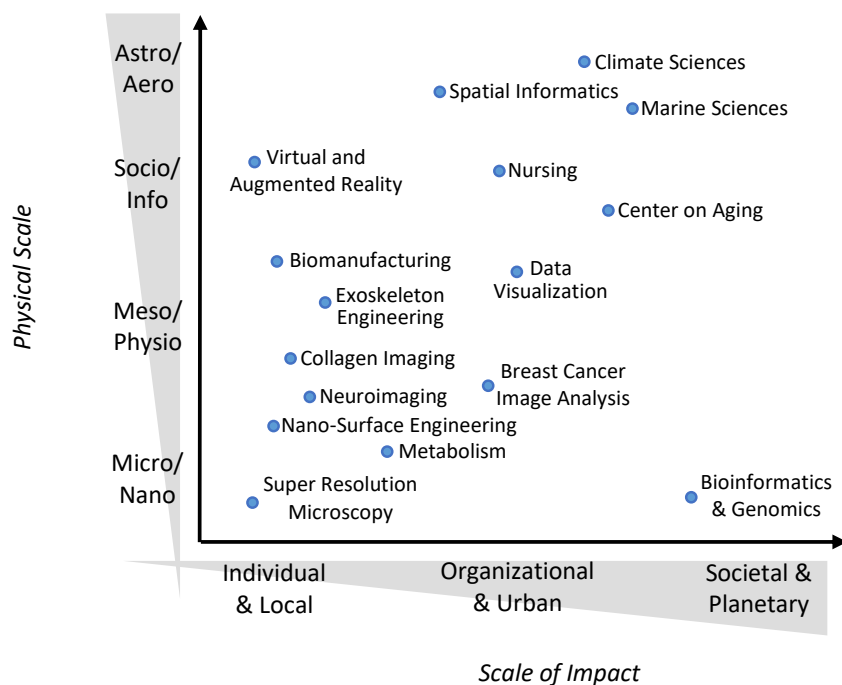


Figure 2: A rough placement of UMaine research across the solution space for feature scale and impact scale in the health sciences. The identified programs are representative only. Not all of the UMaine faculty with interests in these areas are shown. Data science in biomedicine will encompass a very broad range of topics not fully represented here. (A more complete list of related faculty research capabilities and interests can be found in Appendix 1.)

## Genotypes to Phenotypes

Ryan Tewhey, The Jackson Laboratory and UMaine GSBSE

In the years since the completion of the Human Genome Project, new genomic technologies have transformed our understanding of human genetic variation and established a foundation for individualized medicine. Central to this effort are genome wide association studies that have produced an abundance of loci linked to disease risk. However, there remains a critical disconnect between our ability to map associated loci and our understanding of the causal mechanism. This is in large part due to the fact that the over 90% of disease associations localize to the difficult to interpret non-coding regions of the genome. There exists a gap in our ability to identify at high-resolution active gene regulatory elements and their target genes, without which it is difficult to identify single nucleotide variants that directly modulate gene expression and in turn impact disease risk. Thus, with the proper advances in our ability to interpret regulatory elements, each disease association can be fully characterized and become an untapped entry point with the potential to transform our understanding of complex diseases.

The mission of our research group is to bridge this genotype/phenotype gap by improving our ability to identify and interpret single nucleotide variants impacting disease risk. We approach this problem by (i) directly characterizing gene regulatory elements, in both mouse and human models, developing novel technological approaches such as high-throughput reporter assays and CRISPR based screens of non-coding regions in the genome. (ii) By combining these large-scale characterization assays and machine learning approaches we can begin to learn the rules of gene regulation grammar and generate predictions *de novo* across the entire genome. (iii) Finally, by applying our models and guided by existing genome wide association studies we seek to pinpoint and validate causal variants, evaluate their impact on pathophysiology and move towards the development of improved animal models that precisely reflect the true etiology of human disease.

These generalizations are useful to examine both the strengths and the gaps in the UMaine programs. The figure should be used with caution, however. There are far more dimensions to problems in the health sciences and greater challenges. Notably, the lesson is that we must work harder to integrate the efforts of our teams, as well as seek partners who will fill the holes in between the areas of expertise of the faculty.

## Innovative UMaine Educational Programs

Beyond a broad yet conventional set of offerings in undergraduate majors and graduate degree programs, the University of Maine has been developing strategic educational programs that cross disciplines as well as aggregate resources from institutions across the state.

*Finding: The University of Maine has a rich existing educational foundation from which to respond to the Board's request for new interdisciplinary programs with innovative pedagogies to support Maine's emerging digital economy.*

The Board was explicit that UMaine build on work already underway and respond in the following areas: data science (including artificial intelligence and machine learning), biomedical engineering, and health-related biosciences and genetics. Existing programs as well as those in progress in these areas at UMaine include:

**UMaine Master of Science Degree in Data Science and Engineering (in progress)**– The UMaine School of Computing and Information Science (SCIS) is taking the lead in developing a new Master's degree offering in Data Science and Engineering. The project has moved beyond the Intent to Plan stage, and a formal program proposal is under evaluation at the University level, later to be presented to the University of Maine System.

Data science and engineering has become a critical skill field for the 21st century. A host of new technologies (advanced computer modelling, smart sensor networks, high-precision lab instruments, wireless telecommunications, smart devices, and social media) are generating data collections at unprecedented rates. There are numerous new applications for such data in engineering, environmental, and social sciences as well as in business, industry, and government. The pervasive application of artificial intelligence (AI) techniques in continuous mining of big data across diverse domains is now viewed as essential by businesses and government in improving decision-making and acquiring insights that were not previously possible. Longer-term management and reuse of data is also becoming critical, so longer-term curation and data preservation must also be addressed.

Data science and engineering addresses the challenges of capturing, curating, managing, processing, analyzing, and translating massive, complex, heterogeneous, and real-time data into manageable forms, new information, and insights.

The engineering aspects involve the design and development of information systems and data infrastructure to incorporate and implement the new information and insights. For businesses, governments and academic institutions throughout Maine and beyond there is a growing need for a workforce well trained in exactly such skills.

The University of Maine has a solid foundation of existing strengths and resources for developing a Data Science and Engineering M.S. degree offering. The School of Computing and Information Science will provide leadership and key course content. Additional domain specializations including a track in bioinformatics and biomedicine are being developed in collaboration with other units on campus.

A collection of hybrid courses with in-class and online options will support students in residence as well as meet the needs of people currently in the workforce or who are otherwise place-bound and need training or retraining in the area of Data Science and Engineering. Data science relies on a novel mix of mathematical and statistical modeling, computational thinking and methods, data representation and management, effective information presentation, and consideration for responsible use of data in the context of various fields of domain expertise. Data science requires a deep understanding of how data are acquired and an understanding of the semantics of the data, which strongly influences how data are processed, analyzed, stored, accessed, and presented. Data lineage, data quality, quality assurance, data integration, storage, privacy, and security are all critical topics in a robust data science program.

The program includes a set of core courses grouped in themes and a set of domain specialization courses. Students may focus solely on the Data Science and Engineering core or tailor the degree to emphasize one or more domain specializations. To complement both thematic core and domain specializations, some courses may be taken in-class or by distance from other Maine universities if pre-approved for inclusion in graduate student *Programs of Study* assuming that other program requirements are met.

**UMaine Professional Science Masters (PSM) Degree in Bioinformatics** – The UMaine Graduate School of Biomedical Science and Engineering (GSBSE) offers an online Professional Science Masters, PSM, program in Bioinformatics. The PSM provides students an opportunity for advanced training directly relevant to current knowledge for their professional careers. The PSM in Bioinformatics includes interdisciplinary classes across the fields of mathematics, computer science, spatial information science and engineering, and molecular and cell biology. GSBSE faculty from the University of Maine, the Jackson Laboratory, Mt. Desert Island Biological Laboratory, University of New England, University of Southern Maine and Maine Medical Center Research Institute offer the courses for this online degree program.

**UMaine Interdisciplinary M.A. and Ph.D. Programs** – The University of Maine offers over 90 Doctoral, Master's, Certificate, and Professional Programs. Among them, UMaine offers a Master of Arts in Interdisciplinary Studies (MAIS) and an Interdisciplinary Ph.D. (IPhD) program. Both of these programs rely on the formation of interdisciplinary faculty groups guided by related research interests and allow the University of Maine to be nimble in developing and introducing new degree options as this convergent field evolves.

## UMaine Infrastructure in Digital Engineering and the Life Sciences

*Finding: UMaine has the leading academic digital engineering research laboratories and centers in the state of Maine upon which to build new ventures in data science for biomedicine.*

More than just people and programs, UMaine is the home to laboratories and centers of national prominence. To list all of the institutes and center from forestry to aquaculture is not possible here, and not all of it is relevant to the Board's charge to recommend programmatic innovations in data science for biomedicine. A few of the related labs and centers at UMaine include:

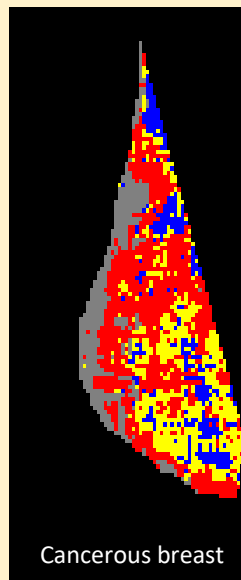
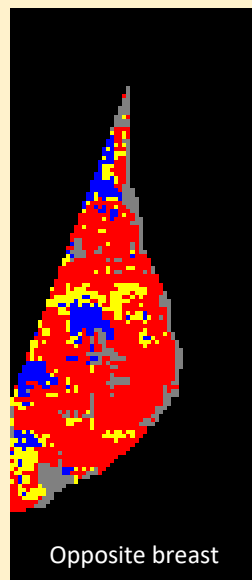
**The Virtual Environment and Multimodal Interaction Laboratory (VEMI Lab)** – Founded over ten years ago, the Virtual Environment and Multimodal Interaction (VEMI) Laboratory, directed and operated by Dr. Nicholas Giudice and Dr. Richard Corey, is part of the Spatial Informatics program in the School of Computing and Information Science at the University of Maine. The VEMI lab is an educational, research, and development facility based on a collaborative model where faculty, undergraduate, and graduate students across more than a dozen disciplines learn about scientific research, creative design, and technical skills using the latest virtual and augmented reality technologies. VEMI Lab research addresses:

1. The design and evaluation of cutting-edge information-access technologies to improve environmental awareness, spatial learning, and navigation for people with visual impairments (blind individuals, older adults, and anybody who is visually distracted, such as texting while walking).



- Studying the human interactions for optimizing the accuracy, efficiency, and safety of autonomous vehicles (the fastest growing, yet least studied class of transportation).

### Predicting Loss of Tissue Homeostasis in Breast Tumor Microenvironment



Andre Khalil, UMaine

The multicellular architecture and organization of the ductal tree of the mammary gland has coherent cellular movement within an extracellular matrix cocoon that guides formation of structural units of tissues important for quiescence and homeostasis. We verified the hypothesis that disruption of coherent angular motion, and the consequential adoption of randomized motility associated to malignant transformation is a physical

phenomenon that we can characterize quantitatively via the roughness fluctuation analysis of mammographic microenvironment tissue. When compared to normal tissue environment, the tissue in the microenvironment of tumors is *disrupted*, as quantified via a computational wavelet-based multifractal method. The density fluctuations in healthy mammographic breast tissue, characterized by their surface roughness by the Hurst exponent,  $H$ , are either anti-persistent ( $H < 1/2$ ) for fatty tissue (shown in blue) or long-range correlated ( $H > 1/2$ ) for dense tissue (shown in red). However, tissue regions with  $H \sim 1/2$  (yellow) are found predominantly in tumorous breasts. The underlying physical processes associated with a  $H \sim 1/2$  signature are randomness, lack of spatial correlation, and free diffusion, which we associate with loss of homeostasis in the breast tumor microenvironment. Current analyses led by Dr. Khalil, founding director of the CompuMAINE Lab, may be indicative of this disruption preceding tumor onset, thus promising novel avenues in *predictive medicine*.

Marin, Z. , Batchelder, K. A., Toner, B. C., Guimond, L. , Gerasimova-Chechkina, E. , Harrow, A. R., Arneodo, A. and Khalil, A. (2017), Mammographic evidence of microenvironment changes in tumorous breasts. Med. Phys., 44: 1324-1336. doi:[10.1002/mp.12120](https://doi.org/10.1002/mp.12120)

**CompuMaine** – The Computational Modeling, Analysis of Imagery and Numerical Experiments (CompuMAINE) Lab is dedicated to digital science and data driven outcomes. By developing and implementing novel signal processing and image analysis techniques combined with computational modeling, CompuMAINE integrates mathematics, physics, artificial intelligence, machine learning, data mining, and computational engineering approaches to study a wide variety of applications. Focused research projects are centered on radiomics, a new field of medical study that aims to extract large amounts of quantitative features from medical images using data-characterization algorithms. Applications include cancer, neuroscience, muscular dystrophy, cell nucleus architecture, biomedical engineering, protein modeling, astrobiology, climate change, surface science, solar physics, interstellar medium, cosmology, and pure mathematics.

**The Frontier Institute for Research in Sensor Technologies (FIRST)** – Building on the foundation established by the Laboratory for Surface Science & Technology (LASST), an interdisciplinary research center at the University of Maine since 1980, the Frontier Institute for Research in Sensor Technologies (FIRST) has been created in its place. Using novel materials, advanced processes, and state-of-the-art devices, the mission of the institute is to research and develop cutting-edge, commercially viable sensor systems for biomedical, environmental, energy, defense, information technology, and other applications. FIRST consists of an internationally recognized,

interdisciplinary team of scientists, coupled with a world-class set of resources and facilities dedicated to the realization of cutting-edge sensor systems that provide solutions for societal advancement and economic well-being.

Since its establishment as an interdisciplinary research center at the University of Maine in 1980, the Frontier Institute for Research in Sensor Technologies or FIRST formerly (LASST). has been very active in carrying out research, teaching, and outreach activities in the broad area of surfaces and interfaces, thin films, microelectronic devices, sensor technology, and nanotechnology. Our faculty, students, staff, and industrial collaborators profit from the synergy brought about by many areas of expertise including physics, chemistry, microbiology, electrical engineering, mechanical engineering, chemical engineering, computer science, informatics, and bioengineering. A wide variety of on-going activities span the range from fundamental research to applied development to technology transfer.

FIRST has an impressive array of instrumentation to synthesize and investigate materials properties at the atomic scale and up to macroscopic dimensions, as well as to fabricate and test a variety of micro/nano electronic devices and micro/nano systems. We welcome opportunities to form partnerships with individuals and organizations who can benefit from this infrastructure. Our funding base is derived from a mix of university, state, federal, and industrial sources, and our skillful research and administrative staff is available to help satisfy the diverse needs of our students and collaborators.

**Zebrafish Facility** – Zebrafish is a prominent animal model for biomedical research. The zebrafish system exemplifies the advantages of invertebrate models (optically clear embryos, quick development times, facile genetics) in a vertebrate model. The zebrafish model has made invaluable contributions to biomedical research. The University of Maine is a hub for investigators that use the zebrafish model. Four faculty focus primarily on the zebrafish model (Henry, Wheeler, Neely, Kim) and many others frequently use zebrafish to complement their cell culture studies. The zebrafish facility at the University of Maine houses over 100 different genetically engineered strains of zebrafish in one room. Because zebrafish are externally fertilized and develop quickly, zebrafish are also used in many different Biology lab classes. Faculty using the zebrafish facility are mainly funded by the National Institutes of Health, although they have also been funded by the National Science Foundation, Burroughs Wellcome Institute, March of Dimes, Muscular Dystrophy Association, and through industry partnerships. The primary zebrafish facility users have brought in nearly 12 million dollars of external funding over the last 12 years.

**Microscopy Laboratory (EML)** – The Electron Microscopy Laboratory, EML, offers the tools and technical expertise for research and training in microscopy with both light and electron microscopes. The EML maintains and operates three electron microscopes (two transmission and one scanning electron microscope), a confocal laser scanning microscope, and the ancillary equipment needed for the preparation of specimens for EM and other microscopy. Its multiple light microscopes encompass optics for bright-field, phase-contrast, differential-interference, and fluorescence imaging. Conventional electron diffraction at a range of camera lengths can be accomplished with the transmission electron microscopes.

### Existing Need – Beyond Breaking Silos, Incentivize Collaboration

UMaine has substantial assets in faculty, staff, academic units, degree program offerings, laboratories, and centers; however, institutional barriers and limited resources often obstruct cross-disciplinary, cross-college participation. Schools do not receive credit, benefits, or resources for sponsoring or engaging in interdisciplinary projects, and students are assigned to a home department sometimes impeding commitment of faculty time and mentoring if credit is not dispersed and acknowledged among other participating departments or schools.

What is needed is a new programmatic model for not only recognizing interdisciplinary, convergent science, but for *rewarding* student, faculty, and staff participation in such endeavors. Properly motivated, research expertise at the University of Maine can spur new lines of investigation. Enjoining corporate partnership early in research projects will help keep educational development focused on market-relevant content as well as ensuring that graduates possess skills that are responsive to the emerging digital economy.

## Roadmap

After examining the needs of the state of Maine, exploring the national educational and research trends in interdisciplinary science, and assessing the people, programs, and infrastructure at UMaine, the following primary findings emerge:

*Primary Finding 1. – UMaine has expertise in depth. The faculty and staff are capable of exploring compelling problems, addressing specific challenges or opportunities in life and health sciences.*

*Primary Finding 2. – UMaine has lacked the resources and organizational structure needed to promote the deep integration across academic units for sustained interactions to create the multidisciplinary breakthroughs needed to solve biomedical problems facing our society.*

Paul Lauterbur, the co-inventor of the medical MRI (magnetic resonance imaging scanner), titled his 2003 Nobel prize acceptance speech: *All Science is Interdisciplinary: from Magnetic Moments to Molecules to Men*<sup>7</sup>. The pioneering work by Peter Mansfield and Paul Lauterbur was a collaboration between a physicist and a chemist. Lauterbur's lecture is a tribute to lowering the barriers, describing Physics and Chemistry as "disciplines, not natural categories with rigid boundaries to be defended against intrusions, but guides to instruction and efficient administration."

His lecture is therefore cautionary not to let the "guides for instruction and efficient administration" impede the vital process of scientific progress. Today's tools of machine learning and data science are not just the purview of computing, nor are the sequencing data of genomics and microscopic images of embryology the proprietary effects of biology. Medicine is a young, integrative field, requiring the participation and contribution of all scientists, engineers, toolsmiths, thinkers, artists, designers, and entrepreneurs.

### Recommendation 1: Establish the Maine Center for Convergent Science

The 2017, National Academy of Sciences, Engineering, and Medicine report entitled *A New Vision for Center-Based Engineering Research* envisioned convergence becoming the essence of center-based research in the 21st century<sup>8</sup>. In keeping with those findings, we propose a new center, the Maine Center for Convergent Science, MCCS, to serve in Paul Lauterbur's words as a guide for multidisciplinary "instruction and efficient administration." The goal of such a center would be to transform science as usual, incentivizing collaboration across units, and educating a new generation of students better prepared to enter a workplace that will be seeking inventive solutions to society's most difficult problems.

*Recommendation 1a. – Fortify MCCS with sufficient resources in administration and education to deliver its mission of changing the nature of interdisciplinary research from an exception to the commonplace approach for accomplishing meaningful science and engineering.*

MCCS cannot be delivered through stipends and assignments to faculty over and above their existing duties. By its nature, a center for convergent science will not answer directly to home departments or colleges. To avoid conflicts of interest, MCCS should have its own director, associate directors for educational programs, and research coordinator to promote the desired cross-disciplinary investigations. It has to be somebody's full time day job to found and grow this initiative. An excellent model for the organizational structure of the MCCS is the University of Maine's Climate Change Institute (CCI). Faculty members of CCI have their tenure home within an academic department and their research appointment within CCI. As a result, CCI has a financial investment in every faculty member who has a full appointment within CCI which extends to the hiring of new faculty as well as the peer review process. We feel that such a model is an effective means of promoting interdisciplinary collaboration across departmental boundaries.

### Recommendation 2: Support, Enable, and Create New and Existing Educational Programs

We recommend both the design of a program to prepare students to thrive in an economy dominated by torrents of data and the establishment of a focal point for economic and professional development in a world where data science is disrupting traditional models for technology transfer. It is the combination of an emerging workforce with digital skills with a hub for innovative research solutions based on data science that will attract and establish new industry partners throughout Maine. We encourage the blending of educational tools with active research to give graduates the practical experience they will need to enter an active digital economy.



*Recommendation 2a. – Expand the existing UMaine Professional Science Master’s Degree program in Bioinformatics.*

The UMaine PSM in Bioinformatics is an online program that is intended to serve as continuing education in support of the existing workforce at companies, institutions, and laboratories in the state of Maine. The rapid development of analytics and data science technology require lab techs, engineers, and scientists to seek programs to stay current in emerging digital tools. The UMaine PSM in Bioinformatics can provide a vital service to the state, but it needs additional faculty and qualified instructors. These personnel could be postdoctoral fellows who have other duties in research programs, but they must be current in cutting edge software, data engineering, and other techniques.

*Recommendation 2b. – Expedite the adoption of the proposed Master of Science Degree in Data Science and Engineering. Provide resources and approval for the needed faculty to support the expanding curriculum.*

UMaine has proposed a Master of Science degree in Data Science and Engineering. The proposal contains provisions and plans for a hybrid program of online synchronous and asynchronous education. Many of the courses will be on digital engineering, mathematics, statistics, and data science, but the extension of these skills to the biomedical sciences will require new courses and faculty time to plan and deliver the material. This program will require new faculty: tenure-track professors, visiting positions, and lecturers.

*Recommendation 2c. – Create a data science pipeline for students from the state of Maine from high school through their baccalaureate degree and on to graduate education creating seamless pathways from level to the next.*

In addition to the expanding the existing UMaine Professional Science Master’s program in Bioinformatics and embracing the emerging UMaine Master of Science degree in Data Science and Engineering, we recommend that MCCS address the college-preparedness of students from the state of Maine by developing an educational pipeline that recruits and supports them from high school through post-baccalaureate work. Through a combination of summer programs and active mentoring, we will recruit, engage, prepare, and retain students for multi-disciplinary exploration across their academic careers. This longitudinal and integrative approach is critical to generate the technically nimble and intellectually agile workforce of the future – supporting economic development through a highly skilled workforce and innovation and technology transfer leading to new companies.

We propose to develop an innovative research and educational program to provide a pipeline that will inspire Maine high school students to choose the University of Maine for their Bachelor’s degree and post-graduate work (certificate stacking, professional master’s, master’s, and/or PhD programs). The outcome of this program will be a *uniquely educated workforce* qualified to apply data science and digital engineering methodology to spatial data of any type.

Example pipeline for one program in the Maine Center for Convergent Science: the Data Science and Biomedicine (DSB) program. At the completion of four years at the University of Maine, pipeline students will earn their BS in a relevant major and a graduate certificate in Data Science which may be applied towards a MS degree in Data Science or PSM in Bioinformatics, both offered online, and both can be earned with an additional year of study. Students seeking more in depth research training may apply the credits from the graduate certificate towards a MS or PhD degree in Data Science and Engineering or Biomedical Science and Engineering degree programs.

Rising high school seniors will attend a three-day DSB camp similar to the “choose engineering” camp at the University of Maine. Students will take part in experiments and learn the breadth of DSB projects at the University of Maine.

First year students in the DSB program will: (1) Attend a weekly DSB seminar where faculty and students will present seminal concepts in the convergent areas of data science and biomedicine, (2) Meet with their DSB advisors and plan their curriculum, (3) Choose their “track” – either biomedicine or data science and take classes appropriate for that major, and (4) with their advisor, choose the appropriate classes for their minor in the other track.

Sophomores in the DSB will work towards assembling their project teams. In the fall, the second year DSB seminar will consist of one faculty per four students. The faculty and students will choose projects and assemble teams consisting of both data scientists and biomedical scientists. In the spring seminar, individual teams will take a deep dive into their project topic.

*Recommendation 2d. – M CCS should develop a program of meaningful undergraduate STEM-related experiences in the digital sciences.*

The intent is to create a workforce of graduates prepared to contribute in the complex digital economy we hope to nurture across our state. The hope is not only to create “book-smart” students, but graduates who have participated in projects that give them experience in how to effectively work in teams on complex problems.

Junior and Senior Years in the DSB program will be provided stipends to conduct their project research during the summers and academic years. This *research experience for undergraduates* will provide invaluable training of the future workforce. All teams will meet monthly to present their progress to each other.

Currently, the National Science Foundation is sponsoring REUs, *Research Experiences for Undergraduates*. Similarly, the National Institutes of Health have R25 grants, *Education Projects* used in a wide variety of ways to promote an appreciation for and interest in biomedical research, provide additional training in specific areas, and/or to develop ways to disseminate scientific discovery into public health and community applications. Some NIH R25s are directed for summer research opportunities for undergraduate and high school students. M CCS should pursue external, federal funding to support its programs in these areas.

The development of such a program is necessary to combat the declining population of school-age students which will compromise the size and quality of schools across Maine. The needs of this program are one of the factors in Recommendation 1a to provide for an M CCS Associate Director for Education.

### Recommendation 3: Incentivize Cross-Disciplinary, Convergent Science and Engineering

The University of Maine has an existing comprehensive complement of STEM research and development programs. In order to leverage this portfolio, we make the following recommendations:

*Recommendation 3a. – M CCS initiatives should be designed to cultivate and attract public and private research grants and contracts across all the digital sciences, but particularly at the intersection of computing and biomedicine. The goal would be intense outreach for public funding with the aim of making the state of Maine more competitive nationwide for federally funded research.*

In keeping with the Board’s guidance to pursue data science and digital engineering for biomedical research, we recommend that M CCS programs target public and private sources for grant support, including federal funding from the National Institutes of Health. As mentioned earlier in this report, expert panels from MIT and from NIH have identified convergence research as an important factor toward solving complex problems in biomedicine. In their “Dear Colleagues” letter, NSF is requesting proposals to “identify potential future research areas that go beyond NSF’s Big Ideas, require a convergence approach, cross internal and/or external organizational and disciplinary boundaries, and advance the progress of science as articulated in NSF’s mission.” These statements indicate that the time is ripe not only for M CCS, but also that external funding may be available to sustain such a center.

By UMS policy, as an interdisciplinary center, M CCS cannot grant degrees, and all faculty must report to a home department. However, new mechanisms for administrative credit recognizing the contributions and the service of students and faculty across M CCS concerns must be shared with the center and with the home departments in order to provide incentives for every to participate and play well together. Ph.D. candidates in interdisciplinary programs or otherwise affiliated with M CCS should be shared among home departments. Faculty credit for research and publications achieved through M CCS should apply across academic units for promotion and tenure. Ability to claim Ph.D. candidates and research toward academic units. Only by transparent sharing of credit can we blend the traditional disciplines and create new vehicles for education and efficient administration in convergence research.

### Recommendation 4: Engage Industry from Day One

The process of translating discoveries in basic and applied research through development to commercialization can be eased and accelerated through industrial partnerships with businesses both small and large.

*Recommendation 4a. – M CCS should partner with for-profit and non-profit institutes and companies when proposing research and applying for grant funding.*

We anticipate important partnerships with existing organizations such as the Jackson Labs, Mount Desert Island Biological Laboratories, and the Maine Medical Center Research Institute. UMaine GSBSE already maintains a pedagogical relationship with affiliated faculty in these organizations. Formal agreements for joint grant applications should be encouraged and enabled by MCCC.

*Recommendation 4b. – MCCC should develop strategies for engaging corporate partners, by creating student internship opportunities, structured co-op programs combining classroom-based education with practical work experience, and corporate capstone projects engaging graduate and undergraduate students with company partners.*

Recommendation 3a suggests that MCCC create research experiences for undergraduate students. We contend that these experiences not only be supported and funded; the research problems can be posed and arise from partnerships with industry. Corporate capstone classes can be based on research proposed by companies who partner with MCCC. Further, internship programs and co-operative relationships that combine summer or part-time employment can be created that will help translate educational experiences into practical work.

To achieve these goals, we recommend a phased development plan over ten years. This process will be a combination of traditional as well as inventive staffing strategies along with crucial capital investments.

### Recommendation 5: Fund Faculty Across Academic Units Expressly for MCCC

Rather than only relying on overburdened existing faculty to participate in the newly established MCCC, we suggest that the University authorize funding for new faculty lines to be recruited to academic units, particularly in Biology and Ecology, Computing and Information Science, and Molecular and Biomedical Science, and Chemical and Biomedical Engineering. MCCC will also need experts in Biostatistics, Ethics, and other essential fields. The new faculty lines will simultaneously elevate the University's research profile within the convergence of digital and biomedical sciences and drive the cutting-edge curricular innovations that will extend from K12 to doctoral education.

*Recommendation 5a. – Authority and funding should be made available for at least fifteen new tenure-track faculty lines to support convergence research and education programs in the biomedical sciences as part of the MCCC over the course of five years.*

The University of Maine System Research and Development Plan FY 2020 – FY2024 includes recommendations for the growth of research efforts in the state<sup>9</sup>. Recommendation 5a is commensurate with the R&D development plan. We recommend authorization for the first three tenure-track faculty lines for MCCC as early as August 2019. Ten of the faculty members should be spread across a variety of academic units. The remaining five faculty should include experts in biomedical ethics, biostatistics, and commercial development and protection of intellectual property. Hiring criteria should be based on convergent STEM research capability.

*Recommendation 5b. – Funds should be appropriated to develop a healthy ecosystem of postdoctoral fellowships, graduate student scholarships, non-tenure-track research faculty, and staff for grant development and corporate outreach.*

In order to become and remain competitive among national research programs, MCCC requires a healthy organization of all ranks of research faculty, staff, postdoctoral fellows, and students. Professionally-oriented Master's and Graduate Certificate programs will rely heavily on faculty at the instructor level whose efforts are primarily focused on teaching rather than research. Tenure-track faculty are best suited for teaching some courses with plenty of protected time for conducting research and seeking federal funding.

Successful active research institutions also maintain a cadre of non-tenure-track research faculty whose primary mission is research. These faculty members write the most grant proposals and drive the highest levels of research across their institutes. After a startup period, they are expected to be self-sustaining on their research grants paying their own salaries and benefits and providing funding and employment for their own students and fellows.

The funding for many of the postdoctoral fellows and graduate students can be included in the start-up packages for the tenure-track faculty mentioned in Recommendation 5a. In addition to those faculty and their startup packages, we

recommend that a minimum of six (6) non-tenure track research faculty be hired and funded for a period of not less than six year each. During that startup period, they will be expected to partner with the MCCC tenure-track faculty and develop self-supporting funding streams of their own. The MCCC research faculty will be phased-in over a period of three years.

#### Recommendation 6: Develop Infrastructure, Educational and Laboratory Space for MCCC

The proposed Maine Center for Convergent Science cannot exist without suitable space to accommodate its programs. Since the old department models will be shed by MCCC, new spaces for meetings, planning, teaching, and research will be needed.

*Recommendation 6a. – Existing structures across the UMaine campus should be identified as possible temporary facilities for MCCC. Renovations for convergent classroom spaces, laboratories, conference rooms, and offices should be undertaken during the first year of the founding of the center.*

Appropriate spaces for research and education will be required to recruit faculty, students, and federal funding. Routinely, NIH grant applications from UMaine are criticized for weaknesses in our research environment. Expenditures to improve the infrastructure for MCCC will be absolutely required.

*Recommendation 6b. – Convergent research will require permanent shared facilities and accommodations so that faculty and students can have a home to collaborate away from traditional departments.*

By the beginning of year three, MCCC should be funded and authorized to begin planning new facilities for classrooms, laboratories, and other infrastructure. Conceived as the Integrative Commons for Convergent Science, we foresee shared laboratories and classrooms where faculty, students, and fellows from a variety of departments will congregate, collaborate, and work together to tackle societies hardest problems. The design of modern research spaces will help to attract top talent and corporate interest to the state.

Finally, by the beginning of year four MCCC should be authorized to undertake a capital campaign to construct its planned facilities.

## Timeline

The creation of the proposed Maine Center for Convergent Science will require years in development. The early years are characterized by startup activities, drafting of bylaws to help govern the center, and the appointment of an initial advisory board to help guide the enterprise. Recruitment of faculty and students will be a constant activity, especially in the beginning. A tentative timeline with major milestones for the first five fiscal years is below:

- Aug. 2019 – Launch meeting, Maine Center for Convergent Science, review of goals, plans.  
Approval of drafting of bylaws for the governance of MCCA; committee formed.  
Acting Director appointed. Authorization to hire MCCA Education Director.
- Sep. 2019 – Advertisement of three tenure-track positions, two in biomedical sciences, one in data sciences and engineering. Committee formed for drafting MCCA Bylaws. Master of Science degree in Data Science and Engineering (MS-DSE) approved.  
New space for MCCA is identified that helps promote collaboration among the faculty in anticipation of the development of the Integrative Commons for Convergent Science.
- Oct. 2019 – Temporary advisory board appointed (inaugural terms to last until June 30, 2021).  
Recruiting begins for staff, including the MCCA Director, MCCA Associate Director for Finance and Budget, MCCA Associate Director for Educational Programs. Recruiting begins for students for the UMaine Master of Science in Data Science and Engineering program.
- Nov. 2019 – Scheduling of courses for the Master of Science in Data Science and Engineering program for Fall 2020.
- Mar. 2020 – Draft bylaws are presented to the UMaine Graduate School and the MCCA Advisory Board.
- May 2020 – NIH R25 Proposal submitted – Summer education programs.  
Approval of the MCCA bylaws. Admissions completed for the 1<sup>st</sup> class of MS-DSE students.  
Building renovation funds are approved.

- 
- Jul. 2020 – MCCA Advisory Board meets. Confirmation of MCCA Advisory Board members for rotating terms. Term ends for Acting MCCA Director. MCCA Director appointed.
  - Sep. 2020 – UMaine Master of Science in Data Science and Engineering program kick-off.  
Advertisement for three tenure-track positions, one in biomedical sciences, one in data sciences, one in biomedical engineering.
  - Jan. 2021 – Begin recruiting for UMaine MCCA Summer Experience, program for students and teachers
  - Jun. 2021 – 1<sup>st</sup> UMaine MCCA Summer research experience, program for high school students and teachers

- 
- Jul. 2021 – MCCA Advisory Board meets. Appointment ends for some temporary board members. Recruiting for two non-tenure-track MCCA research faculty begins.
  - Sep. 2021 – 1<sup>st</sup> Biennial MCCA report to the Trustees. Advertisement for three tenure-track positions, one in biomedical sciences, one in data sciences, one in intellectual property development. 1<sup>st</sup> Corporate Capstone course begins.
  - May 2022 – Graduation of the 1<sup>st</sup> cohort of students with MS in Data Science and Engineering.
  - Jun. 2022 – 2<sup>nd</sup> UMaine MCCA Summer Boot Camp, high school program

- 
- Jul. 2022 – MCCA Advisory Board meets. Appointment ends for remaining temporary board members. Recruiting for a second pair of non-tenure-track MCCA research faculty begins.
  - Sep. 2022 – Advertisement for three tenure-track positions, one in biomedical sciences, one in data sciences, one in data science pedagogy. 2<sup>nd</sup> offering of the MCCA Corporate Capstone course begins. Architectural planning begins for the Integrative Commons for Convergent Science.

- May 2023 – Graduation of the 2<sup>nd</sup> cohort of students with MS in Data Science and Engineering. The Integrative Commons for Convergent Science architectural plan is completed.
- Jun. 2023 – 3<sup>rd</sup> UMaine MCCS Summer Boot Camp, high school program  
Capital Campaign begins for Integrative Commons for Convergent Science
- 

- Jul. 2023 – MCCS Advisory Board meets. Board members rotate. The Integrative Commons for Convergent Science architectural plan is presented to the Advisory Board. A capital campaign begins for the Integrative Commons for Convergent Science. Recruiting for a third pair of non-tenure-track MCCS research faculty begins.
- Sep. 2023 – 2<sup>nd</sup> Biennial MCCS report to the Trustees. Advertisement for three tenure-track positions, one in biomedical ethics, one in data sciences, one in biostatistics. 3<sup>rd</sup> offering of the MCCS Corporate Capstone course begins.
- May 2024 – Graduation of the 3<sup>rd</sup> cohort of students with MS in Data Science and Engineering.
- Jun. 2024 – 4<sup>th</sup> UMaine MCCS Summer Boot Camp, high school program
- 

- Jul. 2024 – MCCS Advisory Board meets. Board members rotate.
- Sep. 2024 – Break ground, Integrative Commons for Convergent Science. 4<sup>th</sup> offering of the MCCS Corporate Capstone course begins.

## Maine Center for Convergent Science – Tabular timeline:

	Admin	HR	Educational	Capital
2019	UMaine committee formed			
March				
May	President's Report to Board of Trustees			
July	Launch Meeting,	Acting Director hired		
September	Bylaws Committee formed	3 faculty ad.	MS-DSE approved	Space is identified
November	Temporary Advisory Board	Assoc. Ed. Director ad.		
2020		Assoc. Finance Dir. ad.		
March	Bylaws presented	Assoc. Res. Dir. ad.	NIH R25 proposal	
May	Bylaws approved	Assoc. Directors hired	1 <sup>st</sup> MS-DSE admissions	Building renovation funds approved
July	Advisory Board Meets	MCCS Director hired		
September		3 faculty ad.	Begin MS-DSE degree	
November				
2021			SRE recruiting begins	
March				
May				
July	Advisory Board Meets	2 Research faculty ad.	1 <sup>st</sup> SRE Program	
September	1 <sup>st</sup> Biennial Trustees Report	3 faculty ad.	1 <sup>st</sup> Corporate Capstone	
November				
2022				
March				
May			1 <sup>st</sup> MS-DSE graduates	
July	Advisory Board Meets	2 Research faculty ad.	2 <sup>nd</sup> SRE Program	
September		3 faculty ad.	2 <sup>nd</sup> Corporate Capstone	ICCS arch. planning begins
November				
2023				
March				
May			2 <sup>nd</sup> MS-DSE graduates	ICCS arch. plan presented
July	Advisory Board Meets	2 Research faculty ad.	3 <sup>rd</sup> SRE Program	Begin ICCS Capital Campaign
September	2 <sup>nd</sup> Biennial Trustees Report	3 faculty ad.	3 <sup>rd</sup> Corporate Capstone	
November				
2024				
March				
May			3 <sup>rd</sup> MS-DSE graduates	
July	Advisory Board Meets		4 <sup>th</sup> SRE Program	
September			4 <sup>th</sup> Corporate Capstone	Break ground ICCS
November				

MCCS – Maine Center for Convergent Science

ICCS – Integrative Commons for Convergent Science

SRE – Summer Research Experience, program for high school students and teachers

MS-DSE – UMaine Master of Science in Data Science and Engineering

Requested: Full time MCCS Associate Director for Education  
 Full time MCCS Associate Director for Finance and Budget.  
 MCCS Director (also GSBSE Director?)  
 MCCS Associate Director for Research  
 Funding for Postdoctoral Fellows or Graduate Students will come from faculty startup packages

Capital: Renovations of existing University of Maine buildings  
 Planning and authorization for new facilities – Integrative Commons for Convergent Science

## References

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- <sup>3</sup> Philip Sharp, *et al.* *Convergence: The Future of Health.* MIT Washington. 2016 June.
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- <sup>5</sup> Barton Haynes and David Kaplan, chairs. 2018. *A Convergence Research Approach to an Effective HIV Vaccine.* NIH: A Joint National Institute on Allergy and Infectious Diseases and National Institute for Biomedical Imaging and Bioengineering Workshop. 2018 September 24-25.
- <sup>6</sup> Kody Varahramyan. 2018. *UMaine Annual Research Report.* University of Maine.
- <sup>7</sup> Paul Lauterbur. 2003. *All Science is Interdisciplinary – From Magnetic Moments to Molecules to Men.* <https://www.nobelprize.org/prizes/medicine/2003/lauterbur/>
- <sup>8</sup> Research Council (NRC), National Academy of Engineering (NAE). 2017. *A New Vision for Center-Based Engineering Research.* Committee on a Vision for the Future of Center-Based Multidisciplinary Engineering Research. Washington (DC): The National Academies Press; 2017 July.
- <sup>9</sup> Joan Ferrini-Mundy. 2019. *University of Maine System Research and Development Plan FY 2020 – FY2024, Executive Summary.* 2019 March 20.



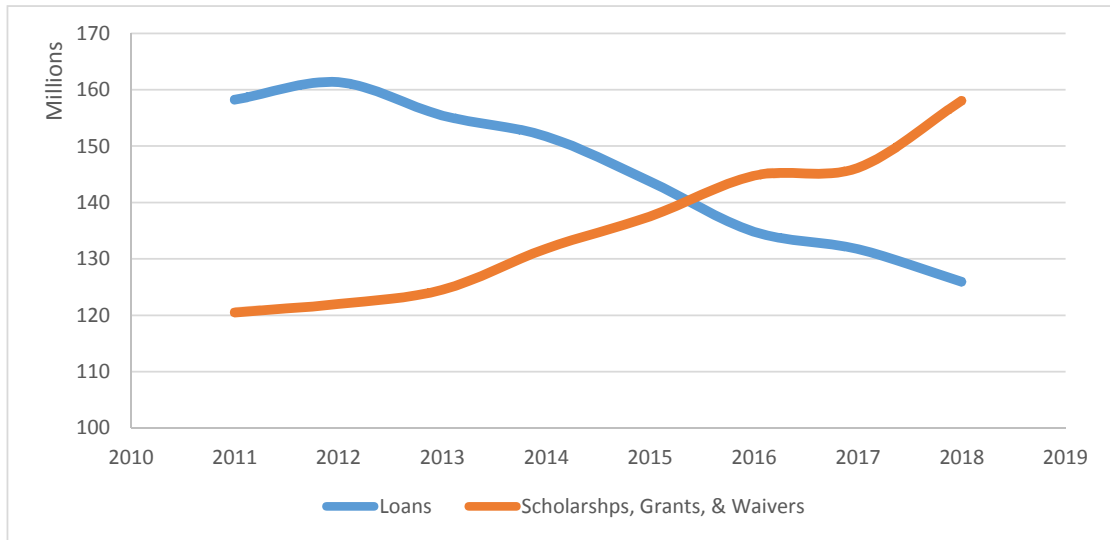
## Appendix 1: Selected University of Maine Faculty with Convergent Science Interests

Faculty	Specialization	Academic Unit
Ali Abedi	Wireless Sensor Networks	Electrical and Computer Engineering
Sofian Audrey	Artificial Intelligence, Machine Learning	Computing and Information Science
Kate Beard	Geographic Information Science, Spatial Statistics	Computing and Information Science
Sudarshan Chawathe	Data Structures, Algorithms	Computing and Information Science
Scott Collins	Biomedical Engineering, Functional Genomics	Chemistry
Phil Dickens	Cloud Computing, High Performance Computing	Computing and Information Science
Max Egenhofer	Database Systems, Spatial-temporal reasoning	Computing and Information Science
Sepideh Ghanavati	Data Privacy and Security	Computing and Information Science
Nicholas Giudice	Human Computer Interaction	Computing and Information Science
Julie Gosse	Immunology, Cancer	Molecular and Biomedical Science
William Gramlich	Bioengineering, Topography	Chemistry
Torsten Hahmann	Data Semantics	Computing and Information Science
Babak Hejrati	Biomechanics and Motion Analysis	Mechanical Engineering
Clarissa Henry	Neurodevelopment, Aging	Biology and Ecology; GSBSE
Sam Hess	Functional Genomics, Biophysics	Physics
Caitlin Howell	Biomolecular Surface Interaction	Chemical and Biological Engineering
Shaleen Jain	Engineering Data Analytics	Civil and Environmental Engineering
Josh Kelley	Computational Image Analysis	Molecular and Biomedical Science
Andre Khalil	Computational Biology, Image Analysis	Chemical and Biological Engineering
Michael Kienzler	Light-activated Molecules for Biological Applications	Chemistry
Ben King	Bioinformatics	Molecular and Biomedical Science
Melissa Maginnis	Molecular Basis of Viral Disease	Molecular and Biomedical Science
Craig Mason	Bio-behavioral Informatics and Quantitative Methods	Education and Applied Quantitative Methods
Mike Mason	Bioengineering	Chemical and Biological Engineering

<b>Faculty</b>	<b>Specialization</b>	<b>Academic Unit</b>
Melody Neely	Immunology, Microbiology	Molecular and Biomedical Science
David Neivandt	Biomedical Engineering	Chemical and Biological Engineering
Silvia Nittel	Spatial Databases, Geosensor Networks	Computing and Information Science
Harlan Onsrud	Data and Information Policy	Computing and Information Science
Nimesha Ranasinghe	Multimodal Sensor Systems	Computing and Information Science
Penny Rheingans	Data Visualization	Computing and Information Science
Mohsen Shahinpoor	Nano-bio Engineering	Mechanical Engineering
Rosemary Smith	Biomedical Engineering, Functional Genomics	Electrical and Computer Engineering
Karissa Tilbury	Imaging Microscopy	Chemical and Biological Engineering
Kristy Townsend	Neurobiology, Aging	Biology and Ecology; GSBSE
Shihfen Tu	Biobehavioral Informatics and Quantitative Methods	Education and Applied Quantitative Methods
Roy Turner	Artificial Intelligence	Computing and Information Science
Rob Wheeler	Immunology, Microbiology	Molecular and Biomedical Science
Qian Xue	Complex Flow Modeling, Fluid Dynamics	Mechanical Engineering
Terry Yoo	Computer Graphics, Image Analysis	Computing and Information Science
Xudong Zheng	Bio-fluid Mechanics	Mechanical Engineering

## Appendix 2: Selected GSBSE Cooperating Faculty with Convergent Science Interests

Faculty	Specialization	Institution
Aaron Brown	Bioengineering	Maine Medical Center Research Institute
Judith Blake	Genomics, Bioinformatics	The Jackson Laboratory
Ewelina Bolcun-Filas	Genomics, Reproductive Biology	The Jackson Laboratory
Carol Bult	Bioinformatics, Genomics	The Jackson Laboratory
Robert Burgess	Neurogenetics	The Jackson Laboratory
Greg Carter	Genomics, Bioinformatics	The Jackson Laboratory
James Coffman	Immunology, Genomics	Mount Desert Island Biological Laboratory
Greg Cox	Neurobiology, Genomics	The Jackson Laboratory
Christine Duarte	Bioinformatics, Genomics	Maine Medical Center Research Institute
Beth Dumont	Bioinformatics, Computational Biology	The Jackson Laboratory
Mary Ann Handel	Genomics, Developmental Biology	The Jackson Laboratory
Ben Harrison	Developmental Neurobiology	University of New England
Arturo Hernandez	Neurogenetics, Genomics	Maine Medical Center Research Institute
Gareth Howell	Genomics, Bioinformatics	The Jackson Laboratory
Catherine Cook Kaczorowski	Genomics, Neurobiology	The Jackson Laboratory
Ron Korstanje	Genomics, Aging	The Jackson Laboratory
Vivek Kumar	Genomics, Neuroscience	The Jackson Laboratory
Volkhard Linder	Proteomics	Maine Medical Center Research Institute
Leif Oxburgh	Bioengineering	Maine Medical Center Research Institute
Igor Prudovsky	Biomedical Engineering	Maine Medical Center Research Institute
Michaela Reagan	Bioengineering	Maine Medical Center Research Institute
Ryan Tewhey	Genomics, Bioinformatics	The Jackson Laboratory



**University of Maine System Progress on Reducing Student Dependency on Debt**

## INCREASING AFFORDABILITY & REDUCING STUDENT DEBT

University of Maine System

April 2019

## Increasing Affordability & Reducing Student Debt

### Introduction

**“THE BEST WAY TO CONTROL STUDENT DEBT IS NEVER TO TAKE IT ON IN THE FIRST PLACE”** *CHANCELLOR JAMES H. PAGE*  
**2019 STATE OF THE UNIVERSITY ADDRESS**

Student debt is a complex problem requiring a comprehensive set of solutions involving the federal and state governments, as well as higher education. This paper explores the current perceptions on student debt held nationally, Educate Maine’s goals for affordability, and how Maine’s Public Universities are currently performing. It discusses current programs offered by the federal and state governments, as well as the University of Maine System’s (UMS) own programs and progress towards reducing the use of loans by its’ students. Finally, the paper concludes with suggestions for additional efforts by the State and the UMS.

Inherent in this discussion is the desire for a college education as a means to a better life, the relatively high cost of college as a percentage of family income and the need for borrowing to close that cost gap. “Students with family incomes of \$50,000.00 or less—even those who receive Pell Grants—are 20 percent more likely to borrow than their more affluent peers. In addition, these students also borrow higher amounts than their peers... [T]hese students are often first generation college students and are at a higher risk of dropping out and defaulting on debt.” *Reducing Undergraduate Indebtedness: Strategies for Reducing Student Debt Accrued by Undergraduates, EAB Academic Affairs Forum, 2012, p. 8.*

The same EAB study indicates the following factors contribute to undergraduate student debt:

- **STUDENT ACCESS TO INCREASED LOAN LIMITS**
- **UNINFORMED BORROWERS**
- **STUDENT SOCIOECONOMIC STATUS**
- **TIME ELAPSED BEFORE DECLARING MAJOR**
- **TYPE OF INSTITUTION ATTENDED**
- **RISING COST OF TUITION AND THE STATE OF THE ECONOMY**

## National Outlook

**NATIONAL STUDENT DEBT.** Open any recent article on student debt in Higher Education and the beginning will read something like, “student debt has more than tripled since 2004, reaching \$1.44 trillion in the first quarter of 2018, according to the Federal Reserve”. A trillion dollars is hard to imagine. Putting the student debt total in context, in the beginning of 2018 the consumer automotive debt was \$1.27 trillion and the total debt for mortgages was \$9.14 trillion. <https://www.statista.com/statistics/500814/debt-owned-by-consumers-usa-by-type/>

**IMPACT OF STUDENT DEBT.** In the report, *Buried in Debt*, the researchers found that students with high levels of debt had high levels of stress that delayed big life events like getting married. Students with debt had restricted opportunities for jobs that may offer low pay (e.g., social workers, teachers, government, and business startups). The researchers also found that people with high levels of student debt had lower credit scores, inability to save, and lower levels of home ownership. <https://www.meetsummer.org/share/Summer-Student-Debt-Crisis-Buried-in-Debt-Report-Nov-2018.pdf>

**PARENT DEBT.** Another rapidly rising trend is that parents now are taking on more debt for their children’s higher education. According to the Department of Education, college students may only borrow up to \$31,000 as a dependent and up to \$57,500 as an independent student. Parents are making up the difference in a new federally sponsored program called Parent PLUS Loans. Research done by Mark Kantrowitz, on data from the National Postsecondary Student Aid Study, indicates that in fiscal year 2016, Parent PLUS loans averaged \$33,291. <https://studentaid.ed.gov/sa/types/loans/subsidized-unsubsidized>.

**FEDERAL STUDENT LOAN INTEREST RATES.** To make matters worse, the interest rate for federal direct undergraduate student loans increased to 5.05%, up from 4.45% in 2017-18. Unsubsidized direct graduate student loan rates rose to 6.60%, up from 6.00%. Rates for PLUS loans, which are for graduate students and parents, rose to 7.60%, up from 7.00%. <https://studentaid.ed.gov/sa/types/loans/interest-rates>

**BENEFITS OF STUDENT LOANS.** Debt isn’t inherently bad. Businesses grow when debt is effectively managed to provide more value than what is owed. This is the contradiction in the national concern about student debt. Even controlling for changes in the economy, on average students with a higher education will earn as much as \$2 million more in their lives, than if they just have a high school education. <https://www.ssa.gov/policy/docs/research-summaries/education-earnings.html> Creating a net positive value of \$2 million by borrowing on average \$30,000 is a return on investment unparalleled in the business world. This benefit is even more inspiring when you consider that the people who borrow the money are typically from low income families that would not be able to attain a higher education without our nation’s commitment. Consider **Table 1 below** that shows that the UMS cohort of 2011 graduated 579 students, who qualified and used their Pell Grants. These 579 students will collectively earn a billion dollars more in their lifetime because they had the opportunity to gain a credential of value. Collectively student loans make sense

and offer great value to our country's citizens; however, this isn't always the case. Students with aspirations to enter careers that historically haven't paid much, will not enjoy the same level of return on investment.

Marx and Turner found in their 2019 study, *Benefits of Borrowing: Evidence on student loan debt and community college attainment*, that students who took out loans had better grades, took more credits, and transferred to four year colleges at statistically significant higher rates. Marx said, "there may be two explanations for why student borrowers outperform their peers. Now a student knows they have to repay a loan in the future, and they take their studies seriously. Loans also provide students with additional financial resources, which means they don't have to spend as many hours working to earn money and can take more classes instead." <https://www.educationnext.org/benefits-of-borrowing-evidence-student-loan-debt-community-college-attainment/>

**Table 1. Pell vs Non-Pell/Non-Subsidized Stafford Loan Recipient Graduation Rates, Bachelor's Degree Seeking**

*Note: as 2011 is the latest 6-year cohort data currently available, it does not reflect interventions put in place since 2011.*

Institution	2011 Pell Cohort			2011 Non-Pell, Non-Subsidized Cohort		
	Pell Recipient Adjusted Cohort	Completed within 6 Years	6 Year Graduation Rate	Adjusted Cohort	Completed within 6 Years	6 Year Graduation Rate
University of Maine	610	295	48.40%	600	404	67.30%
University of Maine at Augusta	170	23	13.50%	28	5	17.90%
University of Maine at Farmington	252	116	46.00%	90	52	57.80%
University of Maine at Fort Kent	68	20	29.40%	50	15	30.00%
University of Maine at Machias	71	21	29.60%	20	8	40.00%
University of Maine at Presque Isle	92	21	22.80%	39	14	35.90%
University of Southern Maine	282	83	29.40%	174	61	35.10%
<i>Total</i>	<i>1,545</i>	<i>579</i>	<i>37.50%</i>	<i>1,001</i>	<i>559</i>	<i>55.80%</i>

Produced by Robert.Zuercher@maine.edu on January 28, 2019. Source IPEDS

## How Does Maine Perform?

**AVERAGE DEBT OF UMS STUDENTS.** University of Maine System (UMS) Students who graduated in 2016 had an average debt of \$28,619, which was lower than the regional average of \$30,432, slightly higher than the national average for public, four-year or above universities of \$27,293, and significantly lower than the national average of \$37,172.

**STUDENT AND INSTITUTIONAL CHARACTERISTICS.** Institutions within the UMS have substantially different student characteristics that explain some of the differences in student debt behaviors/outcomes. For example, UMA primarily serves low-income, first generation, adult learners who attend college only part-time (see Table 2). Students with these characteristics tend to accumulate debt and default at higher rates (see Tables 3 and 4).

The program mix at UMS institutions also influence student debt outcomes. For example, the University of Maine has large enrollments in programs that produce graduates in fields that pay well and are in high demand (e.g., Engineering). An Engineering student will likely find a job right out of college that pays a wage sufficient to cover their student loans. So the students tend to take out a high loan amount, knowing they can pay it back, and default at lower rates (see table 1 and 2).

Additionally, the standard measure for reporting student debt includes resident and nonresident students. Nonresident students pay significantly more tuition and therefore skew the average amount of student debt.

**Table 2. University of Maine at Augusta Student Characteristics**

Description	UMA	Peers	Difference
Part-time enrollment as percentage of total enrollment, %	64.5%	35.4%	29.1%
Percentage of enrollment age of 25 or older, %	64.8%	32.7%	32.1%
Percent of full-time first-time undergraduates awarded Pell grants, %	70.0%	45.9%	24.1%
Percent of undergraduate students enrolled exclusively in distance education courses, %	42.0%	16.3%	25.7%

*UMA Peer Analysis Fall 2017, source IPEDS (Fall 2015)*



Table 3. Average Debt of Graduates

Source: Internal Reports	FY 2016
UMS Average	\$28,619
Source: <a href="http://www.savingforcollege.com">http://www.savingforcollege.com</a> (Mark Kantrowitz)	
National Average	\$37,172
Source: <a href="http://www.college-insight.org">http://www.college-insight.org</a>	
Nation - Public, 4-year or above	\$27,293
New Hampshire - Public, 4-year or above	\$35,657
Vermont - Public, 4-year or above	\$29,012
New York - Public, 4-year or above	\$26,380
Massachusetts - Public, 4-year or above	\$30,679

*Represents only first-time college students with debt earning a bachelor's degree in 2015-2016*

Table 4. FY 2015 3-YEAR COHORT DEFAULT RATES

University of Maine System	Default Rate
University of Maine	6.7%
University of Maine at Augusta	17.0%
University of Maine Farmington	7.0%
University of Maine Fort Kent	8.3%
University of Maine at Machias	16.8%
University Maine Presque Isle	13.8%
University of Southern Maine	6.2%



## Educate Maine's Goal: College Cost & Debt

"The best way to ensure a prosperous future for Maine is to increase the number of Mainers pursuing a credential of value after high school. However, the cost of college and student debt burden has a great influence over who enrolls in higher education and whether or not they graduate. Although tuition is lower in Maine on average, it represents a greater percentage of income. In order to be competitive in an increasingly educated marketplace, the cost of college needs to be more affordable for Maine students, with a goal of closing the affordability gap with New England."

### MAINE IN 2015-16

The average net price of college for students was \$16,735 (39% of per-capita income) and average student debt was 17% of per-capita income.

### NEW ENGLAND IN 2015-16

The average net price of college was \$21,050 (35% of per-capita income) and the average student debt was 12% of per-capita income."

*Education Indicators for Maine 2018, Educate Maine, p. 21,*

[http://www.educatemaine.org/docs/EducateMaine\\_2018\\_IndicatorReportWEB01.pdf](http://www.educatemaine.org/docs/EducateMaine_2018_IndicatorReportWEB01.pdf)

## Federal Programs

**PELL GRANT.** Federal Pell Grants are available to students who have the greatest financial need. Pell Grants are our country's commitment to providing access to college to low-income families. Additionally, unlike most other federal aid programs, the Pell Grant does not have to be repaid. The amount of the award is determined on the basis of unmet need and current maximum award is \$6,095 annually.

<https://studentaid.ed.gov/sa/types/grants-scholarships/pell>

**POST 9/11 GI BILL.** Citizens that served in the military may receive (or assign to a dependent) up to \$21,970 per year for tuition, \$1,000 for books, and money for housing. These benefits are prorated depending on time served; 40% of the benefits if they served 90 days and 100% of the benefits if they served at least three years.

[https://www.benefits.va.gov/GIBILL/resources/benefits\\_resources/rates/ch33/ch33rates080116.asp](https://www.benefits.va.gov/GIBILL/resources/benefits_resources/rates/ch33/ch33rates080116.asp)

Only 50% of veterans use their available GI Bill benefits. Veterans who use their GI Bill benefits have equivalent graduation rates (51.7%); however, take longer than their peers to obtain their credential of value.

<https://www.insidehighered.com/quicktakes/2014/03/24/data-student-veterans-college-outcomes-under-new-gi-bill>

**TEACH GRANT.** The Teacher Education Assistance for College and Higher Education (TEACH) Grant Program provides up to \$4,000 per year to students who are completing or who plan to complete coursework that is required to begin a career in teaching, and agree to teach full time for at least four years at an elementary school, secondary school, or educational service agency that serves students from low-income families and to meet other requirements. <https://studentaid.ed.gov/sa/types/grants-scholarships/teach>

**PUBLIC SERVICE LOAN FORGIVENESS PROGRAM.** The remaining balance of Direct Loans is paid after you have made 120 qualifying monthly payments while working full-time for a qualifying employer (e.g., government agency, certain nonprofit organizations).

## State Programs

**THE STATE OF MAINE GRANT PROGRAM.** The Maine State Grant provides need-based grants to Maine undergraduate students. For the 2018–2019 academic year, the maximum grant award amount is \$1,500. This amount has not increased in many years despite increasing tuition and, historically, the grant has required a May application deadline. [https://www.famemaine.com/maine\\_grants\\_loans/state-bof-maine-grant-program/](https://www.famemaine.com/maine_grants_loans/state-bof-maine-grant-program/)

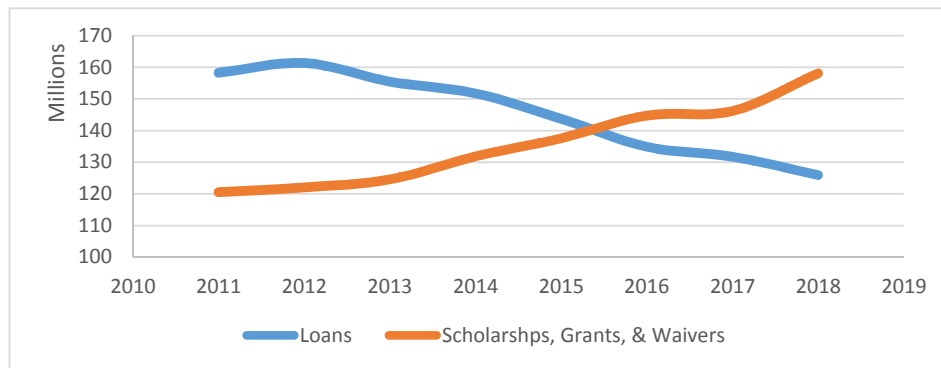
**EDUCATIONAL OPPORTUNITY TAX CREDIT.** Students who earn an Associate's, Bachelor's, or Master's degree and continued to live and work in Maine after graduation – may be eligible for an Educational Opportunity Tax Credit on their Maine income tax return. Tax credits are based on the amount of student loan payments. The tax credit is also available to Maine businesses that make their employees' educational loan payments.

**FAME ALFOND LEADERS:** The Alfond Leaders student debt reduction program provides student loan repayment assistance to people who live and work in Maine in a STEM- (Science, Technology, Engineering and Math) designated occupation at a Maine-based employer. Alfond Leaders may qualify for loan repayment up to half of their outstanding student loan balance at the time of application to the program, not to exceed \$60,000 <https://www.famemaine.com/education/topics/managing-student-loans/alfond-leaders/>

## UMS Programs & Progress

**TUITION FREEZE & INCREASED SCHOLARSHIPS, GRANTS AND WAIVERS.** Beginning in 2012 the UMS froze tuition and the mandatory fee for six consecutive years. Also beginning in 2012, UMS total scholarship, grant and waiver awards began to increase. As a result, total loans have been decreasing since 2012. See graph A.

**Graph A: Total UMS Dollars Awarded in Aid v. Loans**



Source University of Maine System Financial Aid Annual Reports

**EAB STUDENT SUCCESS COLLABORATIVE.** EAB provides technology and techniques designed to maximize student success and completion. All UMS campuses utilize the Foundations tool, which provides predictive analytics associated with student success and risk within key courses and major milestones. Three campuses (UMA, UMM and UMPI) have also implemented the Navigate suite, which enables campuses to identify patterns of student success and failure, plan strategic interventions, coordinate student support and measure impacts.

**PROMISE PROGRAMS.** Available to first-time, full-time college students who are Pell Grant-eligible Maine residents and who agree to take 30 or more credits per year and maintain a 2.0 or higher GPA. The Promise program covers tuition and the mandatory fee and is designed to be a “last dollar” method of student financial support after the Pell Grant, Maine State Grant and other forms of aid are applied. Promise Programs are available at the University of Maine at Augusta (UMA), the University of Maine at Fort Kent, the University of Maine at Machias, and the University of Maine at Presque Isle. UMA also extends its program to “new to UMS” in-state full-time and part-time transfer students who have earned at least 30 transferable credits.

**ADULT DEGREE COMPLETION SCHOLARSHIP.** Dedicated scholarship to support adult students returning to college after an absence of three or more years to complete their first baccalaureate degree. Applicants may qualify for up to \$4,000 per academic year for up to eight consecutive semesters.

**EARLY COLLEGE.** Early College is a program that provides higher education courses to high school students. The course offerings vary. Some are offered on university campuses and others are taught directly in the high schools. Currently, students can take up to 12 tuition-free credit hours per year (6 credits per semester). <https://academics.maine.edu/early-college/> The average debt for students with early college credits is significantly lower than their peers. A study at UMaine showed that students who graduated in four years and entered UM with one to nine early college credits was 15% lower than those who did not bring in early college credit. For those who brought in 10 to 15 early college credits, the average debt level was 22% lower than those who did not bring in any early college credits. – *UM Report on Student Debt for Graduates*

**COMPLETE COLLEGE AMERICA'S 15 TO FINISH.** The goal of the 15 to Finish program is to get students to enroll in 15 credits each semester (or 30 credits per year, including winter/summer session). Students aren't taking the credits needed to graduate on time, despite research showing the significant benefits of doing so – including better academic performance, higher retention rates and the increased likelihood of completion. Programs like UMaine's Think 30, USM's 15 to Finish, UMF's Farmington in Four and the UMA, UMFK, UMPI and UMM promise grant programs, which require 30 credit hours annually, work towards the 15 to Finish goal. In an analysis of student debt at UMaine, researchers found average student debt for Maine residents who complete their UM degree in four years is \$22,101. For those who graduate in five, it's \$29,973, and if it takes six years to graduate, the debt load is \$33,482. Their finding clearly illustrates the impact of timely graduation on student debt. – *UM Report on Student Debt for Graduates*

**BLOCK TRANSFER & PRIOR LEARNING ASSESSMENT.** The UMS implemented block transfer of general education within our System and between the UMS and the Maine Community College System. Such agreements help to reduce time and cost to degree. Prior learning assessment (PLA) enables students to document their learning outside of the classroom and, where appropriate, translate that learning into academic credit, again reducing time and cost to degree. The campuses of the UMS have adopted a uniform set of guidelines for PLA which ensure alignment across the System.

**FINANCIAL LITERACY TRAINING.** The UMS utilizes the iGrad financial literacy platform to provide valuable informational resources for students. Additionally, UMA's New Ventures Maine offers workshops on personal finance, budgeting, savings and repairing your credit that are open to all UMS students.

**DEBT COUNSELING.** Through a partnership with FAME, UMS employs ECMC as our vendor to conduct grace period counseling, and "61+" day calls to borrowers who are behind in their payments to help get them back on track to avoid default. Beginning in Fall 2019, ECMC will produce debt summary letters and infographics for every borrower once per semester to help them track their student debt.

## What More Can We Do?

### STATE

**Increase E&G Funding for Public Higher Education.** State appropriation underwrites the cost of tuition for in-state students, and keeping tuition low is the best way to minimize or avoid student debt.

**Increase Maine State Grant.** Increasing the size of the Maine State Grant will help to help close the higher education funding gap for in-state students. Making the filing deadline more flexible will also help adult students who tend to enter college when convenient, rather than the traditional Fall enrollment.

**Increase Early College Funding.** Early College helps to reduce the cost and time to completion by allowing students to start college with up to 24 credit hours.

**Funds for Flexible or Emergency Grants.** The availability of small grants to cover past due balances or emergencies helps students to enroll, stay in school and focus on their completion goals.

**Funds for Navigational Support.** Low income, first generation students tend to be more vulnerable in many ways, including lower completion rates and higher borrowing and default rates. Providing our public colleges and universities funding for navigational support to coach these students on how to access available funding and make good financial choices would help improve overall outcomes.

**Financial Literacy Education.** The Department of Education, in partnership with FAME, should expand financial literacy training to public middle schools to help kids learn how to plan and pay for college.

### UNIVERSITY OF MAINE SYSTEM

**Incentivize/Require Financial Literacy Training.** Financial literacy training and advising helps students to face their financial fears, develop a plan for financing their education and make responsible choices.

**Expand Financial Literacy Peer Education Program.** UMF's Peer Education Program provides comprehensive education concerning personal financial well-being including but not limited to: understanding student loans and repayment options, budgeting, smart saving habits, debt management and reduction, tax credits, scholarships and loan forgiveness options for graduates who work in Maine. Funded by a grant from the Maine Attorney General's office, the Financial Literacy Peer Education Program's mission is to implement the program at all seven University of Maine schools.

**Financial Aid Packaging.** UMS should find ways to creatively package financial aid, to show the true cost of attendance and to discourage unnecessary borrowing.

**Close Data Gap.** UMS should strive to improve data collection on student borrowing and indebtedness in order to better understand patterns and implement interventions.

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# University of Maine System

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## 2018 Workforce Profile

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Office of Human Resources

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## Workforce Profile

### Highlights

The Workforce Profile is an overview of the UMS workforce, reflecting full-time and part-time regular employees. This represents the 4,588 regular employees that were actively receiving a paycheck as of October 31, 2018. Additionally, there were 883 part time faculty members teaching in the Fall 2018 semester.

### Count and Gender by Category

- Of the 4,588 UMS employees reported: 2.2% are administrators, 27.6% are faculty, 39.8% are salaried staff, and 30.5% are hourly paid staff.
- Overall between the seven campuses, women make up a minority of full time faculty at 47% of the population. However, at UMA, UMF and USM women make up the majority of full time faculty.
- Women are well represented among administrators at 44.6%. There are 101 administrators, 75 of whom are in the Management Group. The Management Group is almost perfectly split between men and women, with women comprising 49.3% of the cohort.
- The majority of regular hourly employees consist of women at 54.7%

### Average Salary by Category

- The average salary for administrators is \$138,928; \$78,327 for faculty; \$53,033 for salaried staff; and \$32,960 for hourly staff.
- Wage increases were negotiated and implemented during the fiscal year 2019 resulting in a net increase across the board. A 2% general increase for non-represented employees went into effect while others vary by bargaining unit negotiated rates.
- Most faculty are appointed on an academic year basis and the annual salary is rated for the nine-month appointment.

### Age

- The average age by employee category is: Administrators average age is 55, faculty 52, salaried 46, and hourly employees average age is 50. These averages have held steady with little variation over the past few years.
- A significant proportion of faculty (45.5%), hourly (47.2%) and administrators (54.5%) are 55 or older.
- The majority of salaried employees (70%) are under the age of 55

### Highest Degree

- As would be expected, a high number of faculty (71.8%) hold terminal degrees. Administrators (36.6%) also hold a significant number of terminal degrees.
- 15.6% of hourly staff have self-reported a baccalaureate or higher degree. 58% of salaried employees report holding a baccalaureate or higher degree. Education level was not reported by 29.3% of employees.

### **Race and Ethnicity**

- There is limited diversity as measured in the federal ethnicity categories. Overall 4.4% of employees system wide report a minority race/ethnicity.
- The University of Southern Maine has the largest proportionate diversity among its employees with 6.7% identifying as minority. The University of Maine reports the highest quantity of minority employees with 99 employees identifying as such.

### **Years of Service/Average Years of Service**

- UMS has many long-service employees. Average length of service ranges from 10.0 years for salaried staff to 13.9 years for administrators.
- More than 19.8% of faculty and more than 20.8% of administrators have 25 or more years of service.
- The University of Maine at Farmington has the highest average years of service for all employment categories at 12.8. The University of Maine at Presque Isle has the lowest average years of service at 10.4 years.

### **Part-Time Faculty**

- In the Fall 2018 semester, there were approximately 883 Part-Time Faculty teaching 4,126 credit hours of course work. The University of Southern Maine employs the most Part-Time Faculty with 363 (41.1%), followed by the University of Maine with 215 (24.35%) and then the University of Maine at Augusta with 140 (15.9%).
- Overall, there were more Part-Time Faculty members teaching courses over 2018 (3.4%) than in 2017. There was a decrease in credit hours awarded (-11.0%) and the number of classes taught (-11.9%) by the group over the same period of time, though.
- While there was a higher number of Part-Time Faculty members teaching, they taught less classes per person on average. From 2015-2017, members taught an average of 2.8 classes, whereas in 2018 they taught an average of 2.1 classes each.

UMS - OHR  
April 2, 2019

### Category Definitions

All UMS positions are categorized as administrator, faculty, salaried, or hourly depending upon the primary type of work performed. The categories, as defined by the IPEDS (Integrated Postsecondary Education Data System) Fall Staff Survey submitted biennially by colleges and universities to the National Center for Education Statistics, U.S. Department of Education, are defined below.

#### **Administrators**

All employees whose assignments require management of the institution, or a customarily recognized department or subdivision. Assignments require the performance of work directly related to management policies or general business operations of the institution, department or subdivision. Assignments in this category customarily and regularly require the incumbent to exercise discretion and independent judgment. This category includes employees holding the following titles who meet the above criteria: president, vice president (including assistant and associate), dean (including assistant and associate if their only activity is administrative and does not include a faculty workload), director (including assistant and associate), department head (including assistant and associate if their only activity is administrative and does not include a faculty workload). Employees in this category are in the management group.

#### **Faculty**

All individuals employed for the primary purpose of instruction, research, and/or public service and who hold academic rank of professor, associate professor, assistant professor, instructor, lecturer or the equivalent. These individuals may also hold titles such as associate dean, assistant dean, chairperson, and director if they also have a faculty work assignment. This report includes faculty in Cooperative Extension; the Tenure Report excludes faculty in this department.

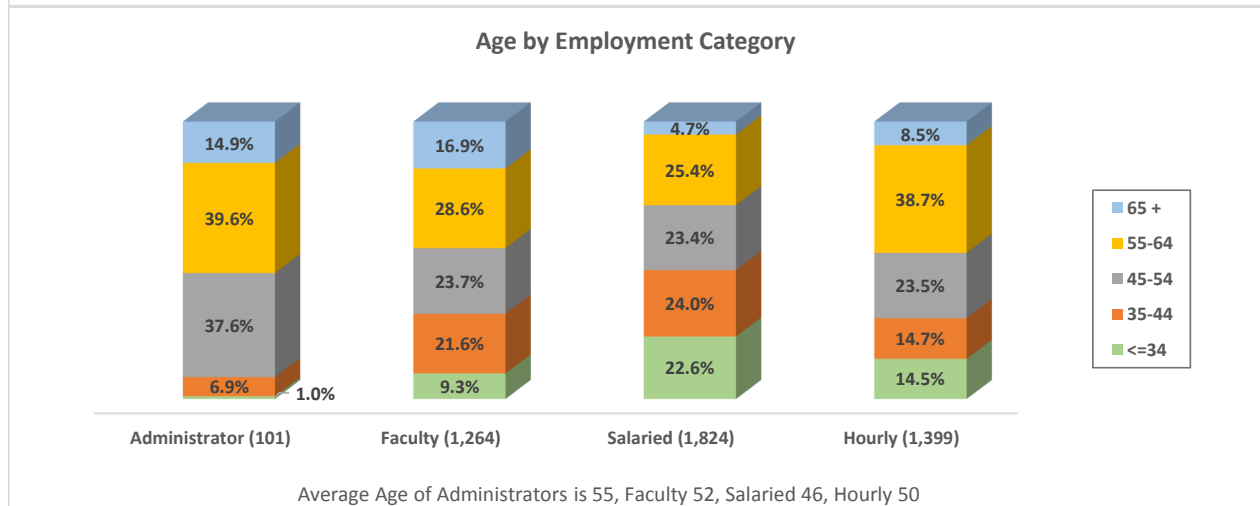
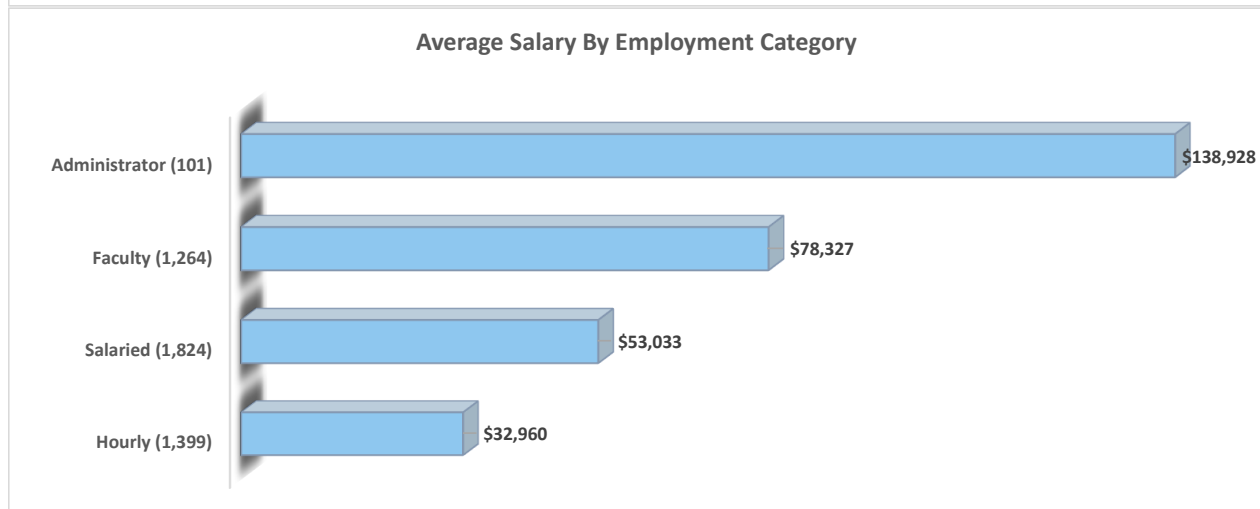
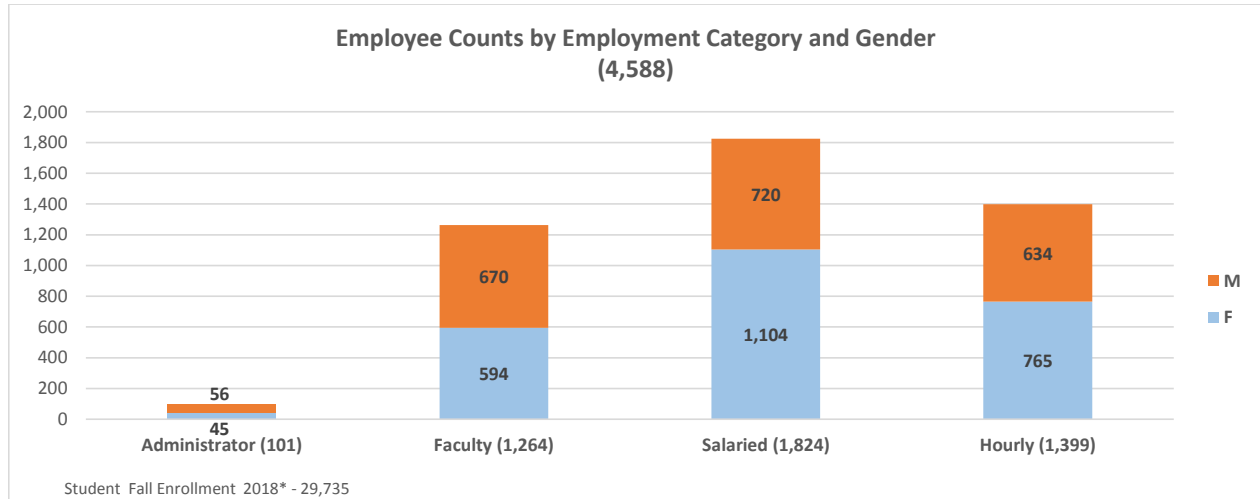
#### **Salaried**

All individuals employed for the primary purpose of performing academic support, student service and institutional support, whose assignments require either a baccalaureate degree or higher or experience of such kind and amount as to provide a comparable background. Includes employees with job titles such as: Business Operations Specialist, Financial Specialist, Accountant, Budget Analyst, Admissions or Financial Aid Counselor, Computer Specialist, Computer Analyst, Database Administrator, Librarian, Resident Director.

## Hourly Staff

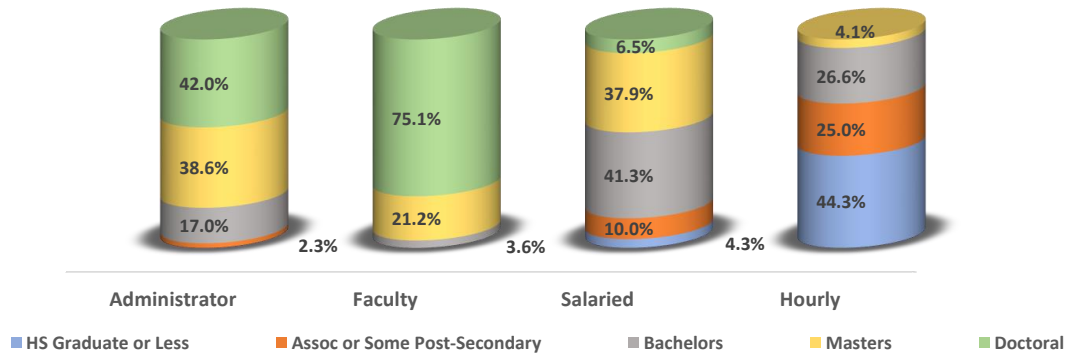
All employees whose assignments:

- Are technical or paraprofessional in nature (requires specialized knowledge or skills which may be acquired through experience, apprenticeship, on-the-job training or academic work in occupationally specific programs that result in a 2-year degree or other certificate or diploma). Includes such titles as Research or Laboratory Technician, Audiovisual Technician, Personnel Assistant. Or;
- Are associated with clerical or secretarial activities (responsible for internal and external communications, recording and retrieving data and/or information, and other paperwork required in an office). Includes such titles as Secretary, Administrative Assistant, Records Technician, Bookkeeper, Library Assistant. Or;
- Involve skilled crafts work (typically requires special manual skills and a thorough and comprehensive knowledge of the processes involved in the work, acquired through on-the-job-training and experience or through apprenticeship or other formal training programs). Includes such titles as Electrician, HVAC Technician, Printer, Garage Mechanic. Or;
- Involve service/maintenance work (requires limited degrees of previously acquired skills and knowledge, performs duties that result in or contribute to the comfort, convenience and hygiene of personnel and the student body or that contribute to the upkeep of the institutional property). Includes such titles as Custodian, Building & Grounds Maintenance Worker, Police Officer, Security Guard, Cook.



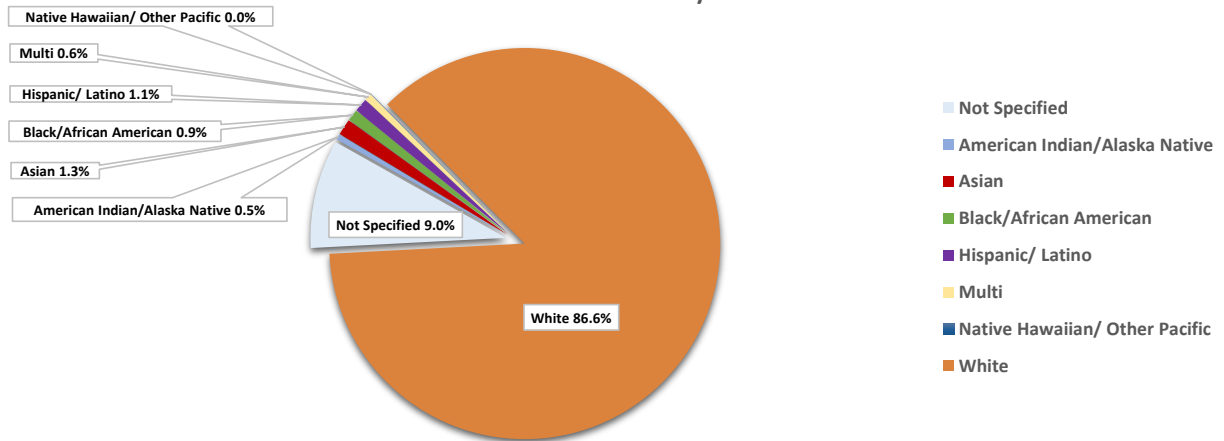
\* Student Fall Enrollment 2018 includes undergraduate and graduate students. The source is Fall 2018 Enrollment Report - The University of Maine System, Fall Semester Headcount by Campus

Highest Degree by Employment Category \*

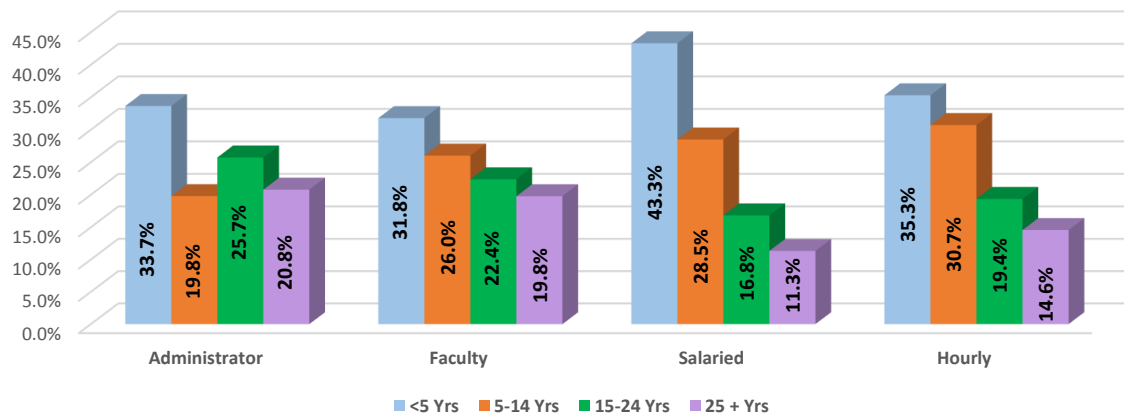


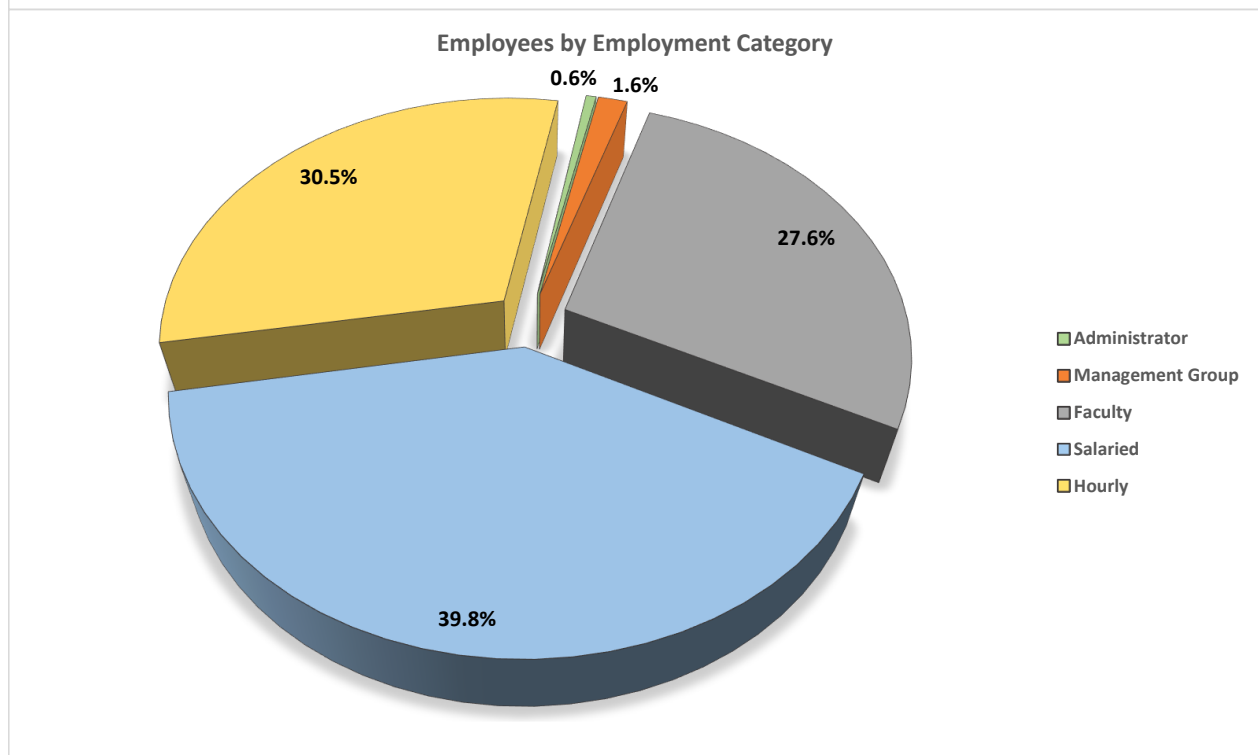
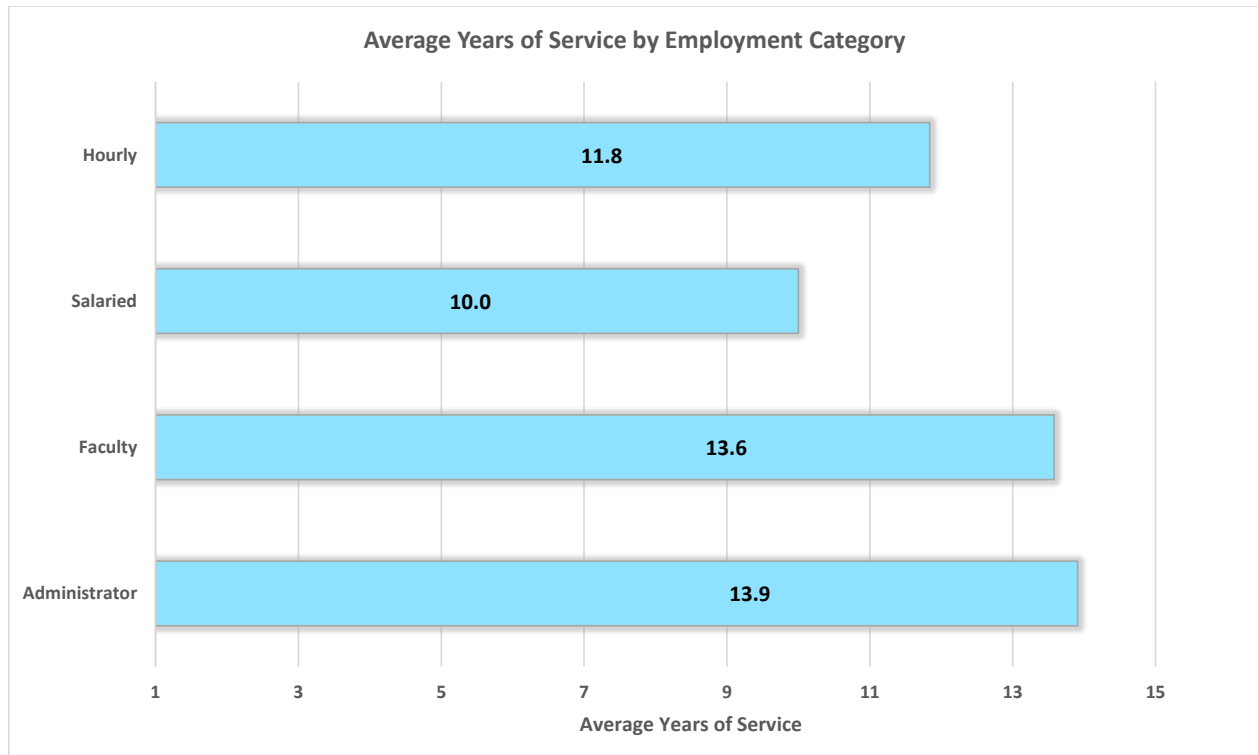
\* Percentage shown for Highest Degree is a percent of the total employees who reported education level; 1,344 employees did not indicate.

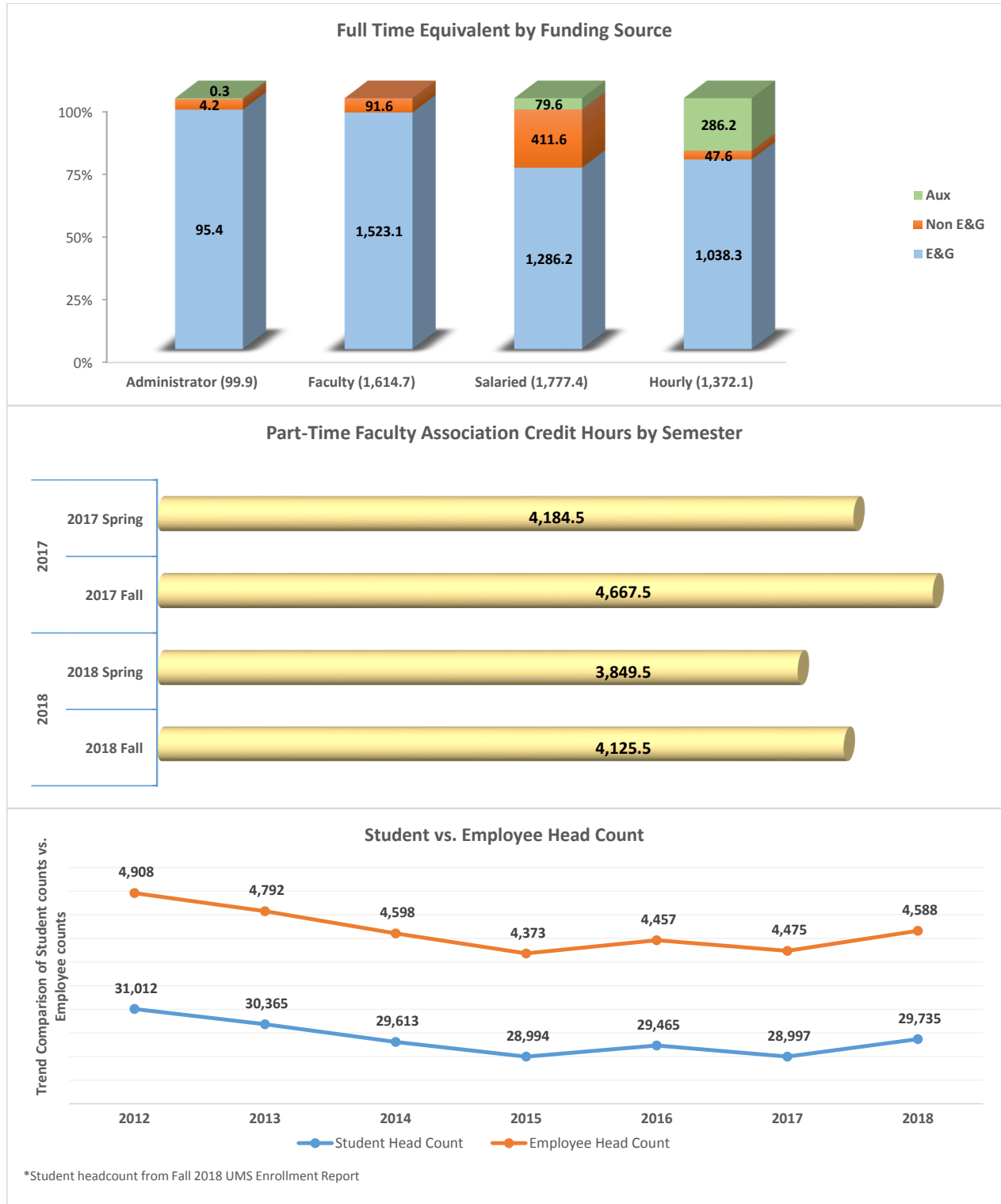
Race and Ethnicity



Years of Service by Employment Category









## Counts by Employment Category and Gender

	University of Maine System				University of Maine				University of Maine at Augusta				University of Maine at Farmington				University of Maine at Fort Kent			
	F	M	Count		F	M	Count		F	M	Count		F	M	Count		F	M	Count	
Administrators	45	56	101		10	17	27		6	3	9		4	5	9		1	1	2	
Faculty	594	670	1,264		269	385	654		48	38	86		74	47	121		13	19	32	
Salaried	1,104	720	1,824		420	336	756		79	34	113		56	35	91		20	19	39	
Hourly	765	634	1,399		397	363	760		64	29	93		51	46	97		22	17	39	
Total	2,508	2,080	4,588		1,096	1,101	2,197		197	104	301		185	133	318		56	56	112	
Student Enrollment	29,735			11,404	4,128			2,040	1,794											

	University of Maine at Machias				University of Maine at Presque Isle				University of Southern Maine				University Governance				University Services			
	F	M	Count		F	M	Count		F	M	Count		F	M	Count		F	M	Count	
Administrators	0	1	1		3	3	6		6	11	17		6	9	15		9	6	15	
Faculty	12	16	28		18	20	38		160	145	305		0	0	0		0	0	0	
Salaried	19	7	26		35	19	54		347	115	462		1	1	2		127	154	281	
Hourly	10	7	17		24	19	43		136	124	260		0	0	0		61	29	90	
Total	41	31	72		80	61	141		649	395	1,044		7	10	17		197	189	386	
Student Enrollment	675			1,554	8,140															

\* Student Enrollment counts from the University of Maine System - Fall 2018 Enrollment Report, Fall Semester Headcount by Campus.

## Average Salary by Employment Category

	University of Maine System		University of Maine		University of Maine at Augusta		University of Maine at Farmington		University of Maine at Fort Kent	
	Count	Avg Salary	Count	Avg Salary	Count	Avg Salary	Count	Avg Salary	Count	Avg Salary
Administrators	101	138,928	27	150,947	9	121,059	9	98,298	2	141,672
Faculty	1,264	78,327	654	85,091	86	66,525	121	63,437	32	61,663
Salaried	1,824	53,033	756	52,718	113	49,038	91	45,051	39	45,451
Hourly	1,399	32,960	760	32,869	93	30,786	97	33,741	39	33,172
Total	4,588	55,772	2,197	56,696	301	50,549	318	50,104	112	47,525

	University of Maine at Machias		University of Maine at Presque Isle		University of Southern Maine		University Governance		University Services	
	Count	Avg Salary	Count	Avg Salary	Count	Avg Salary	Count	Avg Salary	Count	Avg Salary
Administrators	1	140,000	6	98,599	17	143,943	15	170,303	15	131,030
Faculty	28	60,525	38	62,665	305	78,394	0	0	0	0
Salaried	26	38,895	54	43,611	462	53,300	2	73,182	281	61,660
Hourly	17	32,154	43	32,959	260	33,323	0	0	90	34,143
Total	72	47,119	141	47,838	1,044	57,132	17	158,877	386	57,940

## Average Age by Employment Category

	University of Maine System		University of Maine		University of Maine at Augusta		University of Maine at Farmington		University of Maine at Fort Kent	
	Count	Avg Age	Count	Avg Age	Count	Avg Age	Count	Avg Age	Count	Avg Age
Administrators	101	55	27	56	9	56	9	55	2	58
Faculty	1,264	52	654	51	86	57	121	52	32	52
Salaried	1,824	46	756	45	113	48	91	44	39	45
Hourly	1,399	51	760	50	93	52	97	52	39	51
Total	4,588	49	2,197	49	301	52	318	50	112	49

	University of Maine at Machias		University of Maine at Presque Isle		University of Southern Maine		University Governance		University Services	
	Count	Avg Age	Count	Avg Age	Count	Avg Age	Count	Avg Age	Count	Avg Age
Administrators	1	65	6	50	17	55	15	54	15	54
Faculty	28	53	38	54	305	53	0	0	0	0
Salaried	26	44	54	46	462	46	2	61	281	48
Hourly	17	54	43	53	260	50	0	0	90	46
Total	72	50	141	50	1,044	49	17	55	386	48

## Age by Employment Category\*

University of Maine System		Age Group												Total	
		<= 34		35 - 44		45 - 54		55 - 64		65 Plus					
		Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total
Administrators		1	0.0%	7	0.2%	38	0.8%	40	0.9%	15	0.3%	101	2.2%		
Faculty		117	2.6%	273	6.0%	299	6.5%	362	7.9%	213	4.6%	1,264	27.6%		
Salaried		413	9.0%	437	9.5%	426	9.3%	463	10.1%	85	1.9%	1,824	39.8%		
Hourly		203	4.4%	206	4.5%	329	7.2%	542	11.8%	119	2.6%	1,399	30.5%		
Total		734	16.0%	923	20.1%	1,092	23.8%	1,407	30.7%	432	9.4%	4,588	100.0%		
University of Maine		Age Group												Total	
		<= 34		35 - 44		45 - 54		55 - 64		65 Plus					
		Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total
Administrators		0	0.0%	1	0.0%	10	0.5%	14	0.6%	2	0.1%	27	1.2%		
Faculty		83	3.8%	159	7.2%	131	6.0%	178	8.1%	103	4.7%	654	29.8%		
Salaried		214	9.7%	165	7.5%	167	7.6%	179	8.1%	31	1.4%	756	34.4%		
Hourly		103	4.7%	114	5.2%	190	8.6%	297	13.5%	56	2.5%	760	34.6%		
Total		400	18.2%	439	20.0%	498	22.7%	668	30.4%	192	8.7%	2,197	100.0%		
University of Maine at Augusta		Age Group												Total	
		<= 34		35 - 44		45 - 54		55 - 64		65 Plus					
		Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total
Administrators		0	0.0%	1	0.3%	3	1.0%	3	1.0%	2	0.7%	9	3.0%		
Faculty		2	0.7%	13	4.3%	17	5.6%	28	9.3%	26	8.6%	86	28.6%		
Salaried		16	5.3%	27	9.0%	29	9.6%	33	11.0%	8	2.7%	113	37.5%		
Hourly		11	3.7%	12	4.0%	20	6.6%	39	13.0%	11	3.7%	93	30.9%		
Total		29	9.6%	53	17.6%	69	22.9%	103	34.2%	47	15.6%	301	100.0%		
University of Maine at Farmington		Age Group												Total	
		<= 34		35 - 44		45 - 54		55 - 64		65 Plus					
		Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total
Administrators		0	0.0%	1	0.3%	3	0.9%	2	0.6%	3	0.9%	9	2.8%		
Faculty		6	1.9%	28	8.8%	35	11.0%	40	12.6%	12	3.8%	121	38.1%		
Salaried		26	8.2%	19	6.0%	22	6.9%	20	6.3%	4	1.3%	91	28.6%		
Hourly		7	2.2%	13	4.1%	25	7.9%	43	13.5%	9	2.8%	97	30.5%		
Total		39	12.3%	61	19.2%	85	26.7%	105	33.0%	28	8.8%	318	100.0%		
University of Maine at Fort Kent		Age Group												Total	
		<= 34		35 - 44		45 - 54		55 - 64		65 Plus					
		Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total
Administrators		0	0.0%	0	0.0%	1	0.9%	0	0.0%	1	0.9%	2	1.8%		
Faculty		2	1.8%	6	5.4%	11	9.8%	6	5.4%	7	6.3%	32	28.6%		
Salaried		9	8.0%	11	9.8%	9	8.0%	7	6.3%	3	2.7%	39	34.8%		
Hourly		5	4.5%	6	5.4%	8	7.1%	17	15.2%	3	2.7%	39	34.8%		
Total		16	14.3%	23	20.5%	29	25.9%	30	26.8%	14	12.5%	112	100.0%		

## Age by Employment Category\*

University of Maine at Machias	Age Group											
	<= 34			35 - 44			45 - 54			55 - 64		
	Count	% of Total	% of Total	Count	% of Total	% of Total	Count	% of Total	% of Total	Count	% of Total	% of Total
Administrators	0	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	1.4%
Faculty	1	1.4%	9.7%	7	9.7%	7	7	9.7%	9	12.5%	4	5.6%
Salaried	8	11.1%	6	8.3%	5	6.9%	5	6.9%	5	6.9%	2	2.8%
Hourly	1	1.4%	1	1.4%	5	6.9%	5	6.9%	9	12.5%	1	1.4%
Total	10	13.9%	14	19.4%	17	23.6%	23	31.9%	8	11.1%	72	100.0%
University of Maine at Presque Isle	Age Group											
	<= 34			35 - 44			45 - 54			55 - 64		
	Count	% of Total	% of Total	Count	% of Total	% of Total	Count	% of Total	% of Total	Count	% of Total	% of Total
Administrators	1	0.7%	1	0.7%	1	0.7%	1	0.7%	3	2.1%	0	0.0%
Faculty	0	0.0%	6	4.3%	16	11.3%	9	6.4%	9	6.4%	7	5.0%
Salaried	10	7.1%	18	12.8%	9	6.4%	12	8.5%	12	8.5%	5	3.5%
Hourly	4	2.8%	3	2.1%	13	9.2%	19	13.5%	4	2.8%	43	30.5%
Total	15	10.6%	28	19.9%	39	27.7%	43	30.5%	16	11.3%	141	100.0%
University of Southern Maine	Age Group											
	<= 34			35 - 44			45 - 54			55 - 64		
	Count	% of Total	% of Total	Count	% of Total	% of Total	Count	% of Total	% of Total	Count	% of Total	% of Total
Administrators	0	0.0%	0	0.0%	7	0.7%	9	0.9%	1	0.1%	17	1.6%
Faculty	23	2.2%	54	5.2%	82	7.9%	92	8.8%	54	5.2%	305	29.2%
Salaried	96	9.2%	119	11.4%	103	9.9%	121	11.6%	23	2.2%	462	44.3%
Hourly	50	4.8%	34	3.3%	55	5.3%	92	8.8%	29	2.8%	260	24.9%
Total	169	16.2%	207	19.8%	247	23.7%	314	30.1%	107	10.2%	1,044	100.0%
University Governance	Age Group											
	<= 34			35 - 44			45 - 54			55 - 64		
	Count	% of Total	% of Total	Count	% of Total	% of Total	Count	% of Total	% of Total	Count	% of Total	% of Total
Administrators	0	0.0%	2	11.8%	7	41.2%	3	17.6%	3	17.6%	15	88.2%
Faculty	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Salaried	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	11.8%	2	11.8%
Hourly	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	0	0.0%	2	11.8%	7	41.2%	5	29.4%	3	17.6%	17	100.0%
University Services	Age Group											
	<= 34			35 - 44			45 - 54			55 - 64		
	Count	% of Total	% of Total	Count	% of Total	% of Total	Count	% of Total	% of Total	Count	% of Total	% of Total
Administrators	0	0.0%	1	0.3%	6	1.6%	6	1.6%	2	0.5%	15	3.9%
Faculty	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Salaried	34	8.8%	72	18.7%	82	21.2%	84	21.8%	9	2.3%	281	72.8%
Hourly	22	5.7%	23	6.0%	13	3.4%	26	6.7%	6	1.6%	90	23.3%
Total	56	14.5%	96	24.9%	101	26.2%	116	30.1%	17	4.4%	386	100.0%

\* Note - Due to rounding the % of Total in the Total column may not equal the sum of the percents in each age category.

## Highest Degree by Employment Category

University of Maine System															
Not Indicated				HS Graduate		Associates		Bachelor's		Master's		Doctoral		Total	
Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
13	0.3%	0	0.0%	2	0.0%	15	0.3%	34	0.7%	37	0.8%	101	2.2%		
57	1.2%	0	0.0%	0	0.0%	44	1.0%	256	5.6%	907	19.8%	1,264	27.6%		
586	12.8%	53	1.2%	124	2.7%	511	11.1%	469	10.2%	81	1.8%	1,824	39.8%		
688	15.0%	315	6.9%	178	3.9%	189	4.1%	29	0.6%	0	0.0%	1,399	30.5%		
1,344	29.3%	368	8.0%	304	6.6%	759	16.5%	788	17.2%	1,025	22.3%	4,588	100.0%		
University of Maine															
Not Indicated				HS Graduate		Associates		Bachelor's		Master's		Doctoral		Total	
Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
1	0.0%	0	0.0%	0	0.0%	1	0.0%	10	0.5%	15	0.7%	27	1.2%		
34	1.5%	0	0.0%	0	0.0%	27	1.2%	111	5.1%	482	21.9%	654	29.8%		
285	13.0%	28	1.3%	48	2.2%	184	8.4%	171	7.8%	40	1.8%	756	34.4%		
396	18.0%	182	8.3%	95	4.3%	73	3.3%	14	0.6%	0	0.0%	760	34.6%		
716	32.6%	210	9.6%	143	6.5%	285	13.0%	306	13.9%	537	24.4%	2,197	100.0%		
University of Maine at Augusta															
Not Indicated				HS Graduate		Associates		Bachelor's		Master's		Doctoral		Total	
Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	5	1.7%	4	1.3%	9	3.0%
0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	1.0%	36	12.0%	47	15.6%	86	28.6%
37	12.3%	2	0.7%	9	3.0%	27	9.0%	31	10.3%	7	2.3%	113	37.5%		
70	23.3%	4	1.3%	8	2.7%	11	3.7%	0	0.0%	0	0.0%	93	30.9%		
107	35.5%	6	2.0%	17	5.6%	41	13.6%	72	23.9%	58	19.3%	301	100.0%		
University of Maine at Farmington															
Not Indicated				HS Graduate		Associates		Bachelor's		Master's		Doctoral		Total	
Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	0.6%	4	1.3%	3	0.9%	9	2.8%
0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.3%	22	6.9%	98	30.8%	121	38.1%
12	3.8%	3	0.9%	7	2.2%	32	10.1%	34	10.7%	3	0.9%	91	28.6%		
21	6.6%	42	13.2%	18	5.7%	15	4.7%	1	0.3%	0	0.0%	97	30.5%		
33	10.4%	45	14.2%	25	7.9%	50	15.7%	61	19.2%	104	32.7%	318	100.0%		
University of Maine at Fort Kent															
Not Indicated				HS Graduate		Associates		Bachelor's		Master's		Doctoral		Total	
Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
1	0.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.9%	2	1.8%
1	0.9%	0	0.0%	0	0.0%	0	0.0%	5	4.5%	11	9.8%	15	13.4%	32	28.6%
9	8.0%	1	0.9%	2	1.8%	13	11.6%	14	12.5%	0	0.0%	0	0.0%	39	34.8%
10	8.9%	13	11.6%	7	6.3%	8	7.1%	1	0.9%	0	0.0%	0	0.0%	39	34.8%
21	18.8%	14	12.5%	9	8.0%	26	23.2%	26	23.2%	16	14.3%	112	100.0%		

## Highest Degree by Employment Category

University of Maine at Machias	Degree											
	Not Indicated			HS Graduate			Associates			Bachelor's		
	Count	Percent		Count	Percent		Count	Percent		Count	Percent	Total
Administrators	0	0.0%		0	0.0%		0	0.0%		0	0.0%	1
Faculty	2	2.8%		0	0.0%		0	0.0%		1	1.4%	28
Salaried	6	8.3%		0	0.0%		2	2.8%		9	12.5%	26
Hourly	2	2.8%		8	11.1%		6	8.3%		1	1.4%	17
Total	10	13.9%		8	11.1%		8	11.1%		11	15.3%	72
University of Maine at Presque Isle												
	Degree											
	Not Indicated			HS Graduate			Associates			Bachelor's		
	Count	Percent		Count	Percent		Count	Percent		Count	Percent	Total
Administrators	1	0.7%		0	0.0%		0	0.0%		1	0.7%	6
Faculty	2	1.4%		0	0.0%		0	0.0%		0	0.0%	38
Salaried	14	9.9%		1	0.7%		1	0.7%		18	12.8%	54
Hourly	16	11.3%		15	10.6%		8	5.7%		4	2.8%	43
Total	33	23.4%		16	11.3%		9	6.4%		23	16.3%	141
University of Southern Maine												
	Degree											
	Not Indicated			HS Graduate			Associates			Bachelor's		
	Count	Percent		Count	Percent		Count	Percent		Count	Percent	Total
Administrators	1	0.1%		0	0.0%		0	0.0%		2	0.2%	7
Faculty	18	1.7%		0	0.0%		0	0.0%		7	0.7%	305
Salaried	107	10.2%		4	0.4%		16	1.5%		145	13.9%	462
Hourly	119	11.4%		39	3.7%		25	2.4%		66	6.3%	260
Total	245	23.5%		43	4.1%		41	3.9%		220	21.1%	1,044
University Governance												
	Degree											
	Not Indicated			HS Graduate			Associates			Bachelor's		
	Count	Percent		Count	Percent		Count	Percent		Count	Percent	Total
Administrators	6	35.3%		0	0.0%		1	5.9%		2	11.8%	15
Faculty	0	0.0%		0	0.0%		0	0.0%		0	0.0%	0
Salaried	1	5.9%		0	0.0%		0	0.0%		1	5.9%	2
Hourly	0	0.0%		0	0.0%		0	0.0%		0	0.0%	0
Total	7	41.2%		0	0.0%		1	5.9%		3	17.6%	17
University Services												
	Degree											
	Not Indicated			HS Graduate			Associates			Bachelor's		
	Count	Percent		Count	Percent		Count	Percent		Count	Percent	Total
Administrators	3	0.8%		0	0.0%		1	0.3%		7	1.8%	15
Faculty	0	0.0%		0	0.0%		0	0.0%		0	0.0%	0
Salaried	115	29.8%		14	3.6%		39	10.1%		82	21.2%	281
Hourly	54	14.0%		12	3.1%		11	2.8%		11	2.8%	90
Total	172	44.6%		26	6.7%		51	13.2%		100	25.9%	386

## Race and Ethnicity by Employment Category

	University of Maine System				University of Maine				University of Maine at Augusta				University of Maine at Farmington				University of Maine at Fort Kent			
	Minority %	Non Minority %	Not Specified %	Total %	Minority %	Non Minority %	Not Specified %	Total %	Minority %	Non Minority %	Not Specified %	Total %	Minority %	Non Minority %	Not Specified %	Total %	Minority %	Non Minority %	Not Specified %	Total %
Administrators	0.0%	1.9%	0.2%	2.2%	0.0%	1.1%	0.1%	1.2%	0.0%	3.0%	0.0%	3.0%	0.0%	2.8%	0.0%	2.8%	0.0%	1.8%	0.0%	1.8%
Faculty	1.7%	23.6%	2.2%	27.6%	2.0%	24.6%	3.2%	29.8%	1.3%	26.9%	1.6%	28.6%	1.6%	36.2%	0.3%	38.1%	2.7%	25.9%	0.0%	28.6%
Salaried	1.4%	35.2%	3.1%	39.8%	1.4%	29.0%	4.0%	34.4%	1.7%	35.5%	0.3%	37.5%	0.6%	28.0%	0.0%	28.6%	0.9%	25.9%	8.0%	34.8%
Hourly	1.3%	25.9%	3.4%	30.5%	1.1%	28.4%	5.1%	34.6%	2.3%	28.2%	0.3%	30.9%	0.3%	30.2%	0.0%	30.5%	0.9%	30.4%	3.6%	34.8%
Total	4.4%	86.6%	9.0%	100.0%	4.5%	83.1%	12.4%	100.0%	5.3%	93.7%	1.0%	100.0%	2.5%	97.2%	0.3%	100.0%	4.5%	83.9%	11.6%	100.0%

	University of Maine at Machias				University of Maine at Presque Isle				University of Southern Maine				University Governance				University Services			
	Minority %	Non Minority %	Not Specified %	Total %	Minority %	Non Minority %	Not Specified %	Total %	Minority %	Non Minority %	Not Specified %	Total %	Minority %	Non Minority %	Not Specified %	Total %	Minority %	Non Minority %	Not Specified %	Total %
Administrators	0.0%	1.4%	0.0%	1.4%	0.0%	4.3%	0.0%	4.3%	0.1%	1.3%	0.2%	1.6%	5.9%	58.8%	23.5%	88.2%	0.0%	3.4%	0.5%	3.9%
Faculty	0.0%	37.5%	1.4%	38.9%	2.8%	24.1%	0.0%	27.0%	2.3%	24.4%	2.5%	29.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Salaried	0.0%	29.2%	6.9%	36.1%	0.7%	34.0%	3.5%	38.3%	2.2%	40.0%	2.0%	44.3%	0.0%	5.9%	5.9%	11.8%	1.3%	68.7%	2.8%	72.8%
Hourly	0.0%	20.8%	2.8%	23.6%	0.7%	27.0%	2.8%	30.5%	2.1%	21.5%	1.3%	24.9%	0.0%	0.0%	0.0%	0.0%	1.8%	18.4%	3.1%	23.3%
Total	0.0%	88.9%	11.1%	100.0%	4.3%	89.4%	6.4%	100.0%	6.7%	87.3%	6.0%	100.0%	5.9%	64.7%	29.4%	100.0%	3.1%	90.4%	6.5%	100.0%



## Years of Service by Employment Category

University of Maine System		Years of Service				
	< 5 Years Svc Count	5 - 14 Yrs Count	15 - 24 Yrs Count	25 Plus Yrs Count	Total Count	
Administrators	34	20	26	21	101	
Faculty	402	329	283	250	1,264	
Salaried	790	520	307	207	1,824	
Hourly	494	430	271	204	1,399	
Total	1,720	1,299	887	682	4,588	
University of Maine		Years of Service				
	< 5 Years Svc Count	5 - 14 Yrs Count	15 - 24 Yrs Count	25 Plus Yrs Count	Total Count	
Administrators	7	7	5	8	27	
Faculty	214	158	137	145	654	
Salaried	339	200	125	92	756	
Hourly	244	239	159	118	760	
Total	804	604	426	363	2,197	
University of Maine at Augusta		Years of Service				
	< 5 Years Svc Count	5 - 14 Yrs Count	15 - 24 Yrs Count	25 Plus Yrs Count	Total Count	
Administrators	2	1	3	3	9	
Faculty	21	23	16	26	86	
Salaried	46	33	20	14	113	
Hourly	36	32	17	8	93	
Total	105	89	56	51	301	
University of Maine at Farmington		Years of Service				
	< 5 Years Svc Count	5 - 14 Yrs Count	15 - 24 Yrs Count	25 Plus Yrs Count	Total Count	
Administrators	1	2	3	3	9	
Faculty	31	41	30	19	121	
Salaried	37	36	7	11	91	
Hourly	25	30	21	21	97	
Total	94	109	61	54	318	
University of Maine at Fort Kent		Years of Service				
	< 5 Years Svc Count	5 - 14 Yrs Count	15 - 24 Yrs Count	25 Plus Yrs Count	Total Count	
Administrators	1	0	1	0	2	
Faculty	8	13	8	3	32	
Salaried	19	11	7	2	39	
Hourly	13	12	6	8	39	
Total	41	36	22	13	112	

## Years of Service by Employment Category

University of Maine at Machias		Years of Service				Total
	< 5 Years Svc Count	5 - 14 Yrs Count	15 - 24 Yrs Count	25 Plus Yrs Count	Total Count	
Administrators	1	0	0	0	1	
Faculty	7	9	6	6	28	
Salaried	17	6	0	3	26	
Hourly	5	5	5	2	17	
Total	30	20	11	11	72	

University of Maine at Presque Isle		Years of Service				Total
	< 5 Years Svc Count	5 - 14 Yrs Count	15 - 24 Yrs Count	25 Plus Yrs Count	Total Count	
Administrators	1	1	3	1	6	
Faculty	10	11	13	4	38	
Salaried	24	24	3	3	54	
Hourly	16	13	9	5	43	
Total	51	49	28	13	141	

University of Southern Maine		Years of Service				Total
	< 5 Years Svc Count	5 - 14 Yrs Count	15 - 24 Yrs Count	25 Plus Yrs Count	Total Count	
Administrators	6	4	5	2	17	
Faculty	111	74	73	47	305	
Salaried	209	130	80	43	462	
Hourly	109	69	45	37	260	
Total	435	277	203	129	1,044	

University Governance		Years of Service				Total
	< 5 Years Svc Count	5 - 14 Yrs Count	15 - 24 Yrs Count	25 Plus Yrs Count	Total Count	
Administrators	7	4	3	1	15	
Faculty	0	0	0	0	0	
Salaried	1	0	0	1	2	
Hourly	0	0	0	0	0	
Total	8	4	3	2	17	

University Services		Years of Service				Total
	< 5 Years Svc Count	5 - 14 Yrs Count	15 - 24 Yrs Count	25 Plus Yrs Count	Total Count	
Administrators	8	1	3	3	15	
Faculty	0	0	0	0	0	
Salaried	98	80	65	38	281	
Hourly	46	30	9	5	90	
Total	152	111	77	46	386	

Average Years of Service by Employment Category

	University of Maine System	University of Maine	University of Maine at Augusta	University of Maine at Farmington	University of Maine at Fort Kent	University of Maine at Machias	University of Maine at Presque Isle	University of Southern Maine	University Governance	University Services
Administrators	13.9	15.4	17.7	20.6	10.5	0.0	16.5	11.3	8.7	13.5
Faculty	13.6	14.0	16.6	13.3	11.7	14.5	12.8	12.3	0.0	0.0
Salaried	10.0	10.1	10.5	9.6	7.9	6.4	7.4	9.4	16.5	11.8
Hourly	11.8	12.7	9.3	14.4	13.4	11.9	11.1	10.8	0.0	7.3
Average Yrs Svc	11.6	12.2	12.1	12.8	11.0	10.8	10.4	10.6	9.6	10.8

Count of Employment Category with Management Group

	University of Maine System	University of Maine	University of Maine at Augusta	University of Maine at Farmington	University of Maine at Fort Kent	University of Maine at Machias	University of Maine at Presque Isle	University of Southern Maine	University Governance	University Services
Administrators	26	9	1	4	-	-	1	8	-	3
Management Grp	75	18	8	5	2	1	5	9	15	12
Faculty	1,264	654	86	121	32	28	38	305	-	-
Salaried	1,824	756	113	91	39	26	54	462	2	281
Hourly	1,399	760	93	97	39	17	43	260	-	90
Total	4,588	2,197	301	318	112	72	141	1,044	17	386

Full Time Equivalent by Funding Source

	University of Maine System				University of Maine				University of Maine at Augusta				University of Maine at Farmington				University of Maine at Fort Kent			
	E&G	Non E&G	Aux	Total	E&G	Non E&G	Aux	Total	E&G	Non E&G	Aux	Total	E&G	Non E&G	Aux	Total	E&G	Non E&G	Aux	Total
Administrators	95.4	4.2	0.3	99.9	25.0	2.0	0.0	27.0	8.1	1.0	0.0	9.0	8.6	0.0	0.0	8.6	2.0	0.0	0.0	2.0
Faculty	1,523.1	91.6	0.0	1,614.7	701.9	77.4	0.0	779.3	133.9	0.6	0.0	134.5	134.5	2.4	0.0	136.9	59.5	1.0	0.0	60.5
Salaried	1,039.8	47.6	286.2	1,373.6	500.7	22.9	220.4	744.0	83.4	4.0	2.3	89.7	67.0	1.3	25.4	93.6	31.3	2.0	5.0	38.3
Hourly	1,284.7	411.6	79.6	1,775.9	488.2	195.6	58.7	742.5	81.2	24.4	2.0	107.6	74.7	8.7	5.0	88.4	36.2	2.5	1.5	40.2
Total	3,943.0	555.0	366.1	4,864.0	1,715.9	297.8	279.1	2,292.8	306.7	29.9	4.3	340.8	284.7	12.4	30.4	327.4	129.0	5.5	6.5	141.0

	University of Maine at Machias				University of Maine at Presque Isle				University of Southern Maine				University Governance				University Services			
	E&G	Non E&G	Aux	Total	E&G	Non E&G	Aux	Total	E&G	Non E&G	Aux	Total	E&G	Non E&G	Aux	Total	E&G	Non E&G	Aux	Total
Administrators	1.0	0.0	0.0	1.0	6.0	0.0	0.0	6.0	15.4	1.3	0.3	17.0	14.3	0.0	0.0	14.3	15.0	0.0	0.0	85.6
Faculty	34.6	0.0	0.0	34.6	54.3	0.2	0.0	54.5	404.4	10.0	0.0	414.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,614.7
Salaried	13.0	0.0	4.1	17.1	37.0	2.0	3.5	42.5	216.7	13.2	25.6	255.4	1.5	0.0	0.0	1.5	89.2	2.3	0.0	1,372.1
Hourly	21.8	1.0	1.0	23.8	36.4	12.0	1.4	49.8	276.3	157.6	10.0	443.9	0.0	0.0	0.0	0.0	269.9	9.9	0.0	1,775.9
Total	70.5	1.0	5.1	76.6	133.7	14.2	4.9	152.8	912.7	182.0	35.9	1,130.6	15.8	0.0	0.0	15.8	374.1	12.2	0.0	4,848.2

## Part-Time Faculty by University

	University of Maine System			University of Maine			University of Maine at Augusta			University of Maine at Farmington			University of Maine at Fort Kent		
	Count	Credit Hrs	Courses Taught	Count	Credit Hrs	Courses Taught	Count	Credit Hrs	Courses Taught	Count	Credit Hrs	Courses Taught	Count	Credit Hrs	Courses Taught
Spring 2017	814	4,184.5	1,487	210	1,116.0	404	147	724.0	250	44	345.0	89	32	157.0	61
Fall 2017	867	4,667.5	1,635	216	1,117.0	412	148	769.0	258	45	338.0	90	47	380.0	105
Spring 2018	858	3,849.5	1,362	205	899.0	338	152	767.0	257	50	274.0	79	42	281.0	80
Fall 2018	883	4,125.5	1,429	215	1,004.0	357	140	671.0	225	46	252.0	72	52	375.0	100

	University of Maine at Machias			University of Maine at Presque Isle			University of Southern Maine		
	Count	Credit Hrs	Courses Taught	Count	Credit Hrs	Courses Taught	Count	Credit Hrs	Courses Taught
Spring 2017	44	184.5	69	40	234.0	80	308	1,424.0	534
Fall 2017	36	157.0	61	42	248.0	85	346	1,658.5	624
Spring 2018	35	130.5	52	39	182.0	59	346	1,316.0	497
Fall 2018	35	129.0	51	44	222.0	73	363	1,472.5	551



# TURNOVER ANALYSIS

## SEPARATIONS, RETENTION, AND HIRING STATISTICS

FOR  
REGULAR EMPLOYEES

October 31, 2017 - October 31, 2018

April 1, 2019  
UMS Office of Human Resources

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## Methodology

This report includes only regular staff and primary position records for employees in an active, leave with pay or leave without pay status. Regular staff in the Part-Time Faculty bargaining unit are included; temporary staff in the Part -Time Faculty unit are excluded.

The report covers the period from October 31, 2017 through October 31, 2018.

The population is determined by averaging the number of staff active, on leave, or on leave without pay on October 31, 2017 and October 31, 2018.

Resignations, voluntary retirements, failure to return from leave, death, and disability are considered voluntary separations. All other separation reasons are considered involuntary separations. Separations due to death or disability were included with involuntary terminations in reports prior to 2014.

New hires are hired from outside the University and do not include staff who are already employees. The new hire and rehire statistics do not include employees who have taken a secondary job or transferred within the University System. Rehires include employees moving from temporary to regular positions and/or have had a separation from the University of Maine System. Internal hires and transfers are isolated and included for reference.

### Key to bargaining groups:

AFUM - Associated Faculties of the Universities of Maine, MEA/NEA

UMPSA - Universities of Maine Professional Staff Association, MEA/NEA

COLT - Associated C.O.L.T. (Clerical, Office, Laboratory and Technical) Staff of the Universities of Maine, MEA/NEA

Service & Maintenance - Teamsters Union Local #340

University Supervisors

Police - Teamsters Union Local #340

Non-Represented Hourly

Non-Represented Salaried

Non-Represented Faculty - Includes Law Faculty, Chairs at some Universities

PATFA - Part-Time Faculty Association, MFT/AFT, AFL-CIO

## Turnover Highlights

- From October 31, 2017 through October 31, 2018 the number of employee separations for all reasons was 10.3% of the average population of regular employees. Of this, voluntary resignations made up 5.8%, and retirements accounted for 2.6%. The remaining 1.9% involuntary separations resulted from end of term appointments, layoff, and termination.
- The turnover rate reported for all education services by the Bureau of Labor Statistics shows an increasing trend of total annual separations levels. The University of Maine System separations has been trending downward since peaking in 2015.
- The number of separations due to position elimination/staff reduction is 3. This is 8 less than last year for the same period.
- The rate of voluntary separations as a percent of the total University of Maine System population is 6.0%.
- 83.8% of the 469 total separations are due to voluntary resignations and retirements. Retirements alone account for 25.2% of the 469 total separations.
- Separation rates vary among universities from a high of 13.3% for University of Maine Machais to 7.3% at the University of Maine Presque Isle.
- The average years of service for resignation is 4.6 years, 25.3 years for voluntary retirements, and 2.4 years for involuntary separations.
- The average years of service for voluntary separations in the UMPA unit is 3.7 years, and in the COLT unit 3.7 years. The average years of service for retirements in the UMPA unit is 22.4 years, and in the COLT unit, 26.0 years.
- The percent of separations for the represented and non-represented as a percentage of the bargaining unit vary with a high of 38.0% in the PATFA unit to 0% in the Law Faculty unit. Separation rates in other represented bargaining units are: AFUM - 7.1%, UMPA - 10.7%, COLT - 11.8%, S&M - 12.0%, University Supervisors - 7.3%, Police - 8.9%, NR Hrly - 1.7%, NR Sal - 13.4%, NR Fac - 7.1%.

- The UMPSA bargaining unit is 32.2% of the population and accounts for 33.5% of the separations; 82.8% of UMPSA separations are voluntary resignations.
- The percent of new hires/rehires at Universities as a percent of Campus population varies among the campuses with a high of 14.9% at University of Maine at Fort Kent to 6.7% at University of Maine Machias.
- The percent of new hires/rehires in represented and non-represented units vary from a high of 23.8% in NonRep Hourly to a low of 0% in the Law Faculty and PATFA units.
- Retention of employees at all Universities is 89.6%, the lowest retention rate among bargaining groups is PATFA at 61.1%.

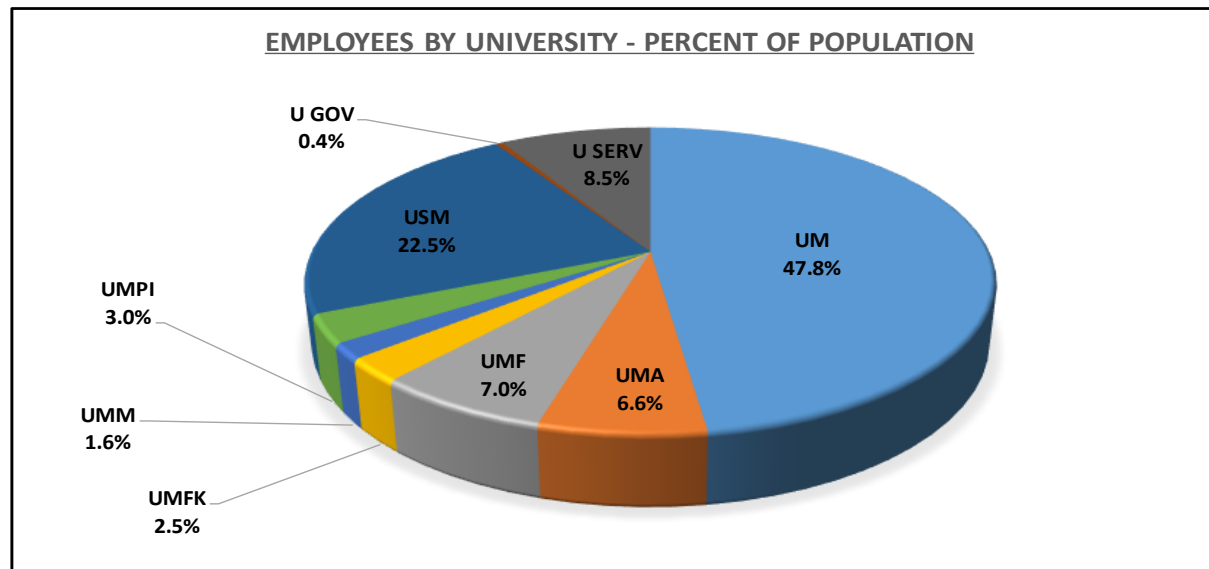
### Average Headcount - Regular Staff by University

UM	UMA	UMF	UMFK	UMM	UMPI	USM	U GOV	U SERV	TOTAL
Num	Num	Num	Num	Num	Num	Num	Num	Num	Num
2,179	303	320	114	75	138	1,026	17	388	4,558

Headcount is an average of the number of regular staff on October 31, 2017 and October 31, 2018.

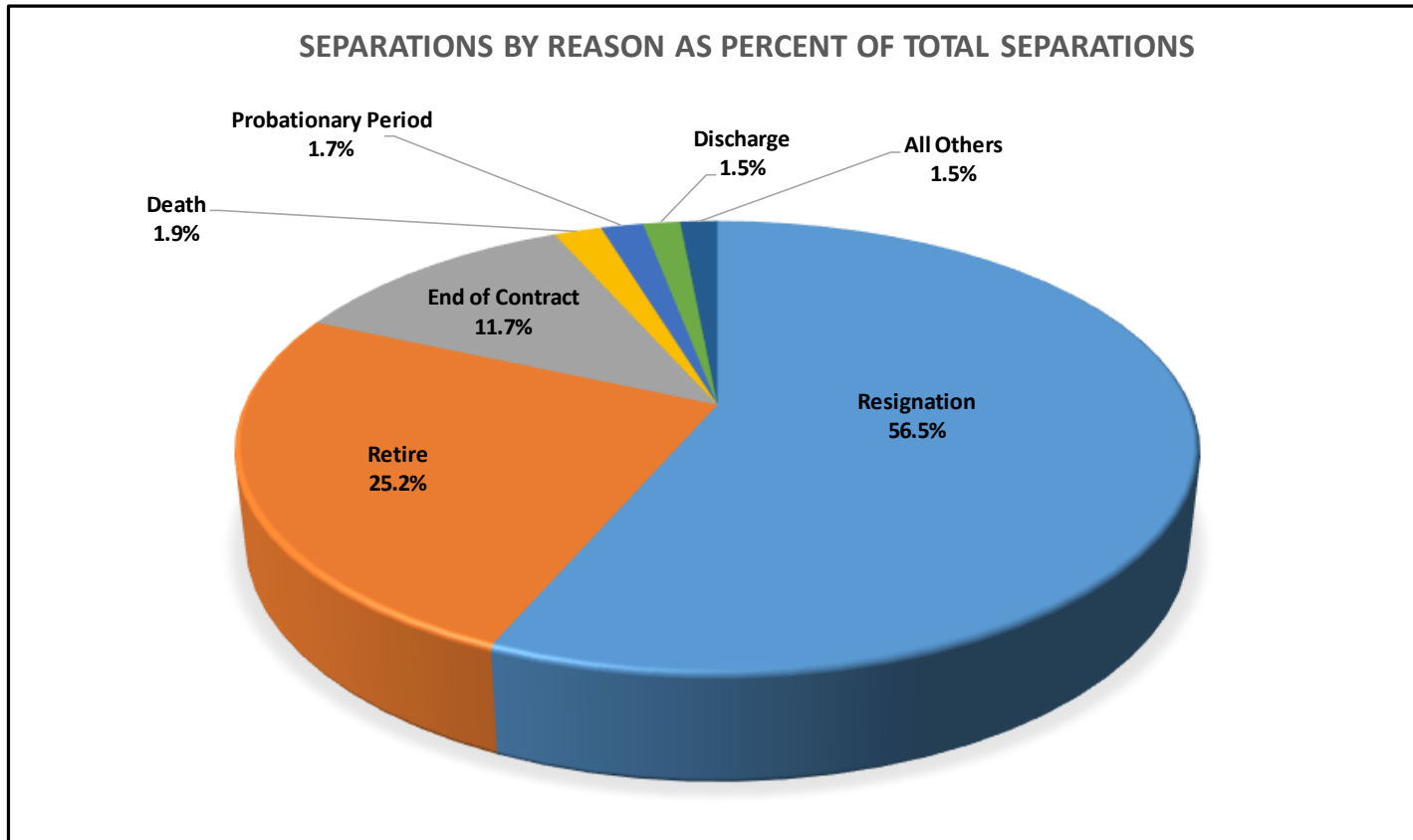
### Turnover Formula

$$\frac{\text{\# of separations}}{\text{average employee population}} \times 100 = \frac{469}{4558} = 10.3\%$$

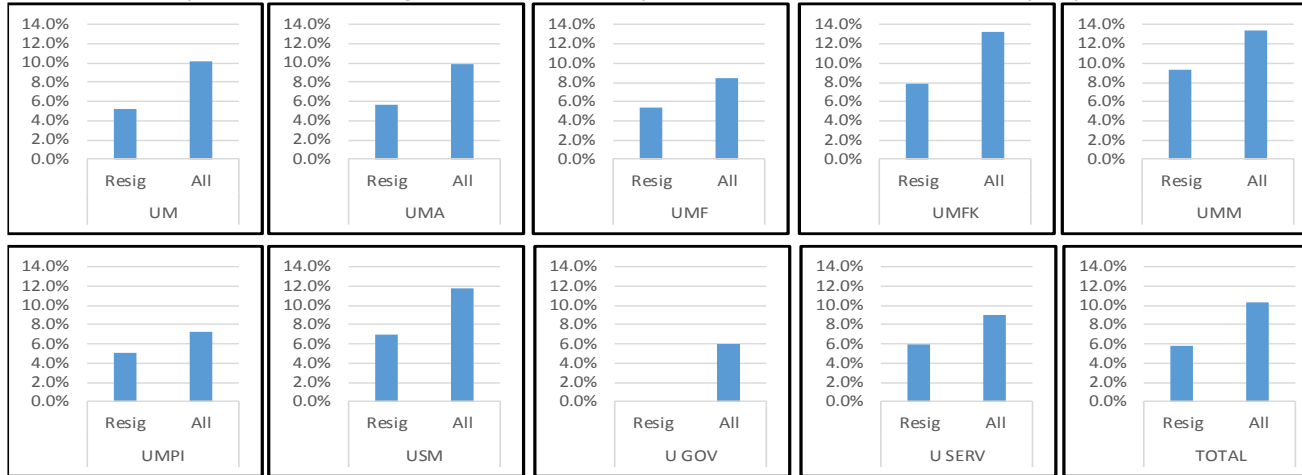


**Separations by Reason  
by University**

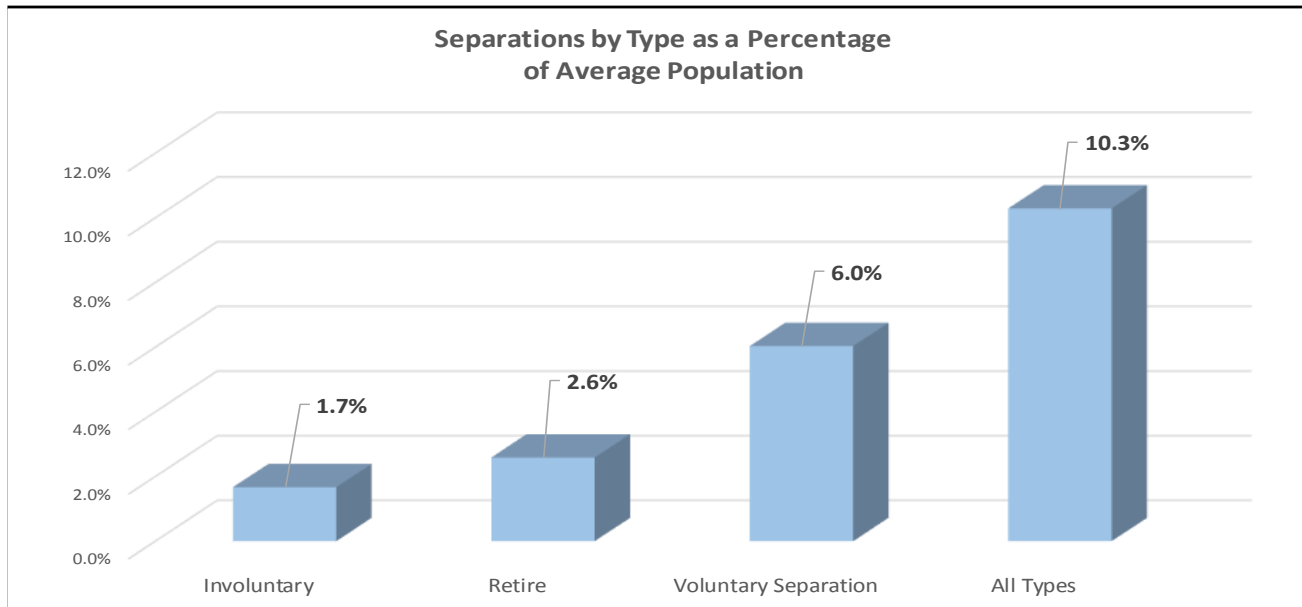
	Death	Discharge	End of Appointment / Contract	Failure to Return from Leave	Non-Reappointment	Probationary Period	Resignation	Retire	Soft Money Discontinuance	Staff Reduction / Position Elimination	Total
UM	4	3	35			4	114	56	2	2	220
UMA	4			1		2	17	6			30
UMF	1	1	3			1	17	4			27
UMFK			3				9	3			15
UMM			3				7				10
UMPI							7	3			10
USM		3	10		1		71	35		1	121
U GOV			1								1
U SERV						1	23	11			35
TOTAL	9	7	55	1	1	8	265	118	2	3	469



**Separation Rate - Resignations and Total Separations As A Percent of University Population**

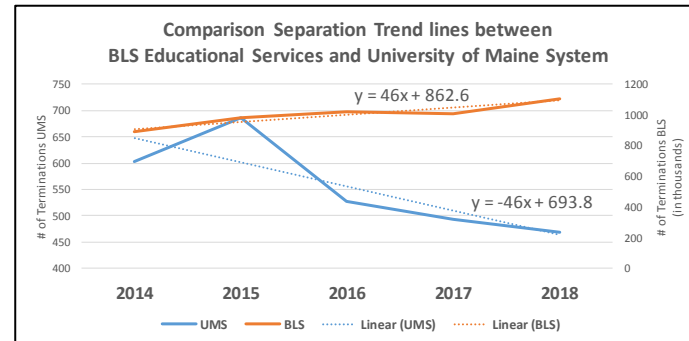
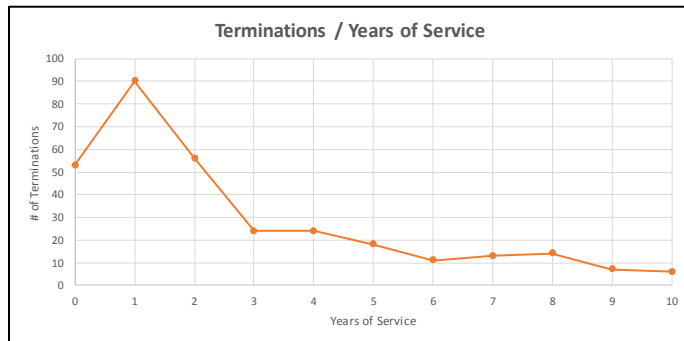


**Separations by Type as a Percentage of Average Population**



**Average Years Service Prior to Separation  
by University**

	UM	UMA	UMF	UMFK	UMM	UMPI	USM	U GOV	U SERV	Total
	Yrs	Yrs	Yrs	Yrs	Yrs	Yrs	Yrs	Yrs	Yrs	Yrs
<b>Involuntary Separation</b>	2.4	0.3	2.3	2.8	1.3		2.9	0.2	0.5	2.4
<b>Retirement</b>	26.3	31.0	20.3	31.8		24.8	22.7		25.2	25.3
<b>Voluntary Separation</b>	4.3	7.6	4.0	5.1	1.4	3.3	4.4		5.1	4.6
<b>Total</b>	9.5	11.8	6.1	10.0	1.4	9.8	9.5	0.2	11.3	9.4





$$\text{Retention} = \frac{\text{final \# of employees}}{\text{initial \# of employees}} \times 100$$

**Retention by University  
as Percent of Campus Population**

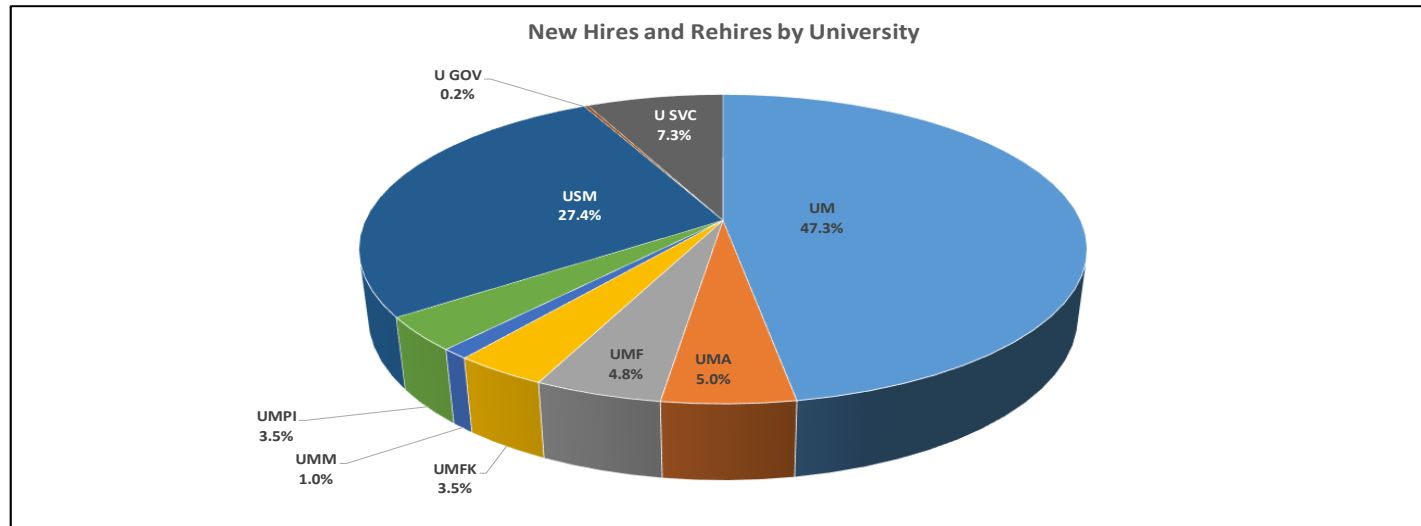
UM		UMA		UMF		UMFK		UMM		UMPI		USM		U GOV		U SERV		TOTAL	
Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
1,927	88.4%	270	90.0%	294	91.6%	96	86.5%	67	87.0%	124	92.5%	881	87.9%	15	93.8%	353	91.0%	4,027	89.6%

**New Hires and Rehires  
by Number and Percent of Campus Population**

UM		UMA		UMF		UMFK		UMM		UMPI		USM		U GOV		U SERV		Total	
Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
228	10.5%	24	7.9%	23	7.2%	17	14.9%	5	6.7%	17	12.3%	132	12.9%	1	5.9%	35	9.0%	482	10.6%

**New Appointments and Transfers  
by Number and Percent of Campus Population**

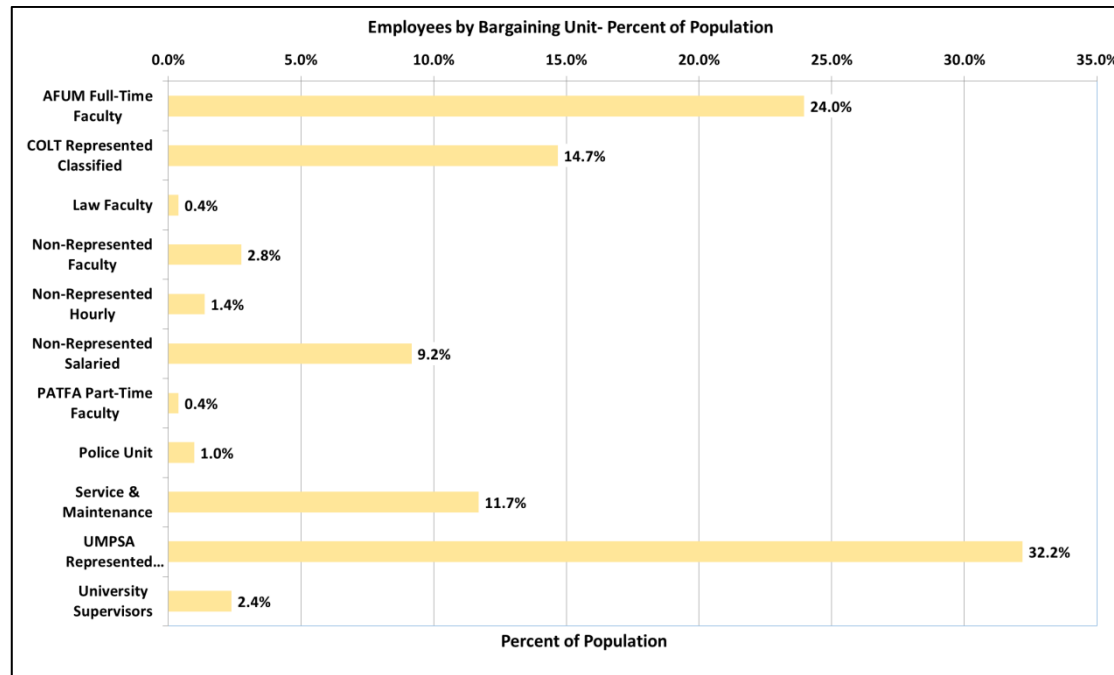
UM		UMA		UMF		UMFK		UMM		UMPI		USM		U GOV		U SERV		Total	
Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
31	1.4%	8	2.6%	1	0.3%	3	2.6%	1	1.3%	2	1.4%	29	2.8%	0	0.0%	2	0.5%	77	1.7%



**Average Headcount - Regular Staff  
By Bargaining Unit**

AFUM	UMPSA	COLT	Serv & Maint	University Superv	Police	NonRep Hourly	NonRep Salaried	NonRep Faculty	Law Faculty	PATFA	Total
Num	Num	Num	Num	Num	Num	Num	Num	Num	Num	Num	Num
1,092	1,467	669	533	109	45	63	418	126	18	18	4,558

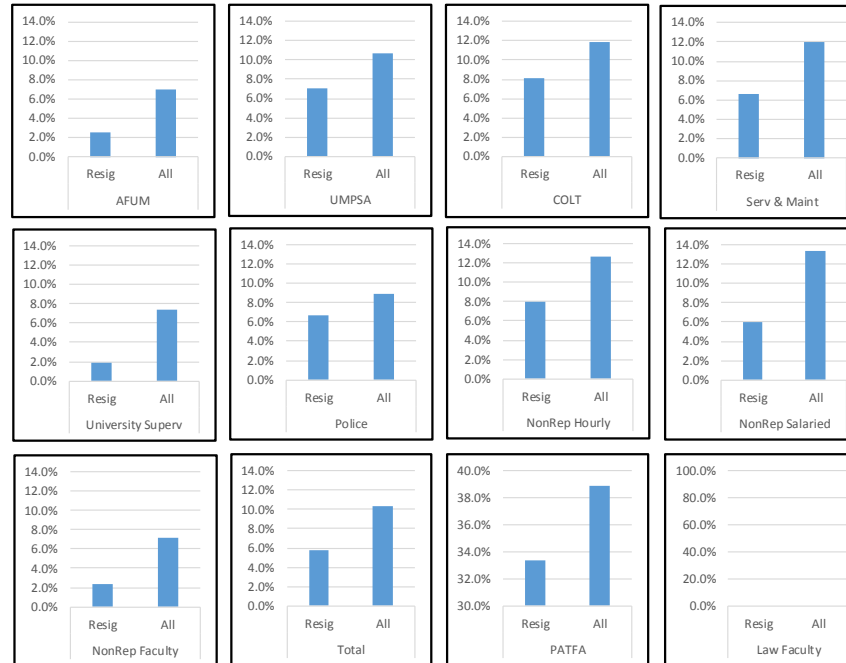
Headcount is an average of the number of regular staff on October 31, 2017 and October 31, 2018.



**Separations by Reason  
By Bargaining Unit**

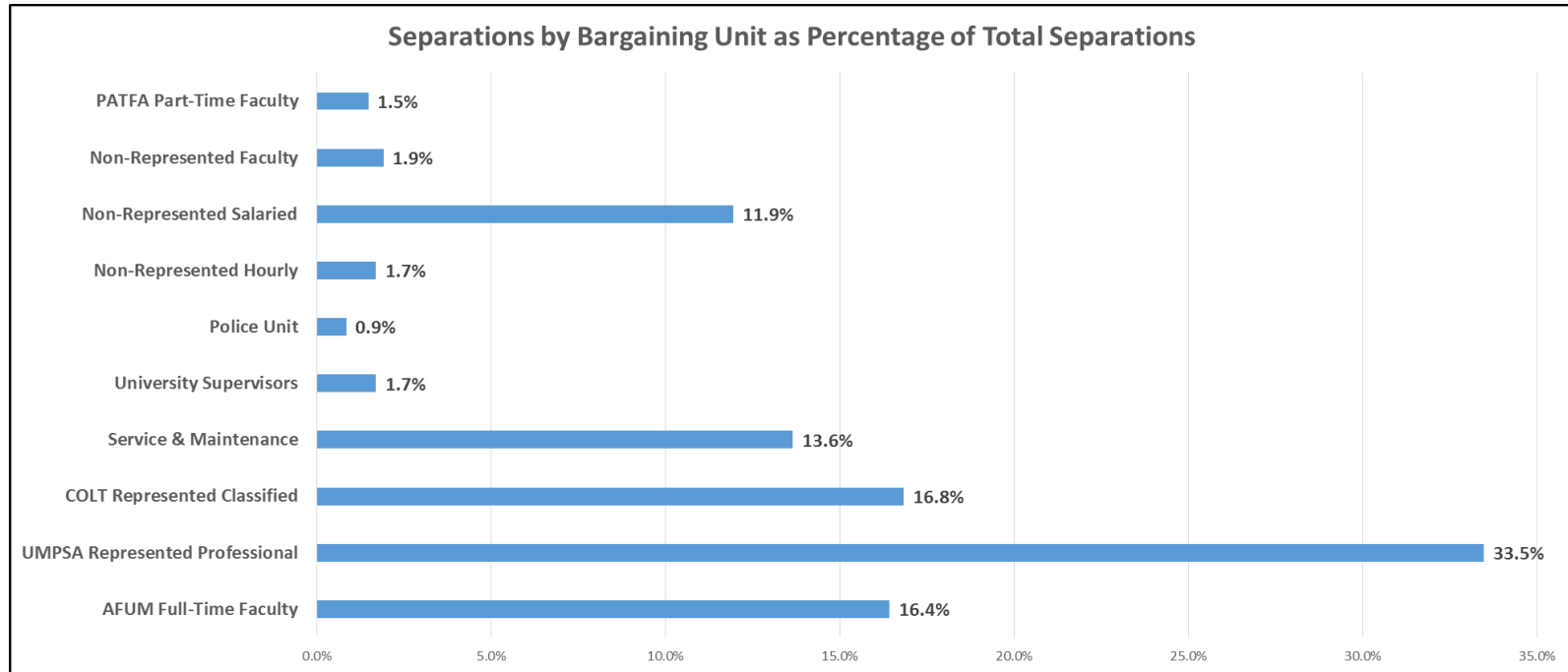
	Death	Discharge	End of Appointment / Contract	Failure to Return from Leave	Non-Reappointment	Partial/Total Disability	Probationary Period	Resignation	Retirement	Soft Money Discontinuance	Staff Reduction	Total
AFUM	2		14		1			28	32			77
UMPSA			20			3		104	26	2	2	157
COLT	2	1	5	1				54	15		1	79
Service & Maint	3	5	3			4		35	14			64
University	1							2	5			8
Police			1					3				4
Non-Rep Hourly			2					5	1			8
Non-Rep Salaried	1	1	5			1		25	23			56
Non-Rep Faculty			4					3	2			9
PATFA			1					6				7
Law Faculty												0
<b>Total</b>	<b>9</b>	<b>7</b>	<b>55</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>8</b>	<b>265</b>	<b>118</b>	<b>2</b>	<b>3</b>	<b>469</b>

**Separation Rate - Resignations and Total Separations  
As Percent of Average Bargaining Unit Population**



**Average Years of Service by Separation Reason  
by Bargaining Unit**

	AFUM	UMPSA	COLT	Serv & Maint	University Superv	Police	NonRep Hourly	NonRep Salaried	NonRep Faculty	PATFA	Law Faculty
	Yrs	Yrs	Yrs	Yrs	Yrs	Yrs	Yrs	Yrs	Yrs	Yrs	Yrs
Involuntary	3.4	2.5	2.3	2.8	0.0	0.3	0.0	0.6	2.3	0.3	0.0
Retire	27.9	22.4	26.0	22.0	35.8	0.0	43.4	22.8	29.4	0.0	0.0
Voluntary	5.6	3.7	3.7	5.5	5.8	4.6	6.1	7.2	1.7	6.0	0.0



**Retention by Bargaining Unit  
by Number and Percent**

AFUM		UMPSA		COLT		Serv & Maint		University Superv		Police		NonRep Hourly		NonRep Salaried		NonRep Faculty		Law Faculty		PATFA		Total	
Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT
1,015	92.9%	1,310	89.3%	590	88.2%	469	88.0%	101	92.7%	41	91.1%	55	87.3%	362	86.6%	117	92.9%	18	100.0%	11	61.1%	4089	89.6%

**New Hires and Rehires  
by Number and Percent of Bargaining Unit Population**

AFUM		UMPSA		COLT		Serv & Maint		University Superv		Police		NonRep Hourly		NonRep Salaried		NonRep Faculty		Law Faculty		PATFA		Total	
Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT
70	6.4%	200	13.6%	87	13.0%	60	11.3%	4	3.7%	4	8.9%	15	23.8%	31	7.4%	11	8.7%	0	0.0%	0	0.0%	482	10.6%

**New Appointments and Transfers  
by Number and Percent of Bargaining Unit Population**

AFUM		UMPSA		COLT		Serv & Maint		University Superv		Police		NonRep Hourly		NonRep Salaried		NonRep Faculty		Law Faculty		PATFA		Total	
Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT	Num	PCT
46	4.2%	20	1.4%	4	0.6%	4	0.8%	0	0.0%	0	0.0%	1	1.6%	2	0.5%	0	0.0%	0	0.0%	0	0.0%	77	1.7%

## **Capital Project Status Report**

### **Executive Summary**

Attached is the Capital Project Status Report for the May 19-20, 2019 meeting of the Board of Trustees. The report reflects a total of 21 projects, with no projects having been removed since the previous report, and one new project having been added.

The new project is UM's Energy Solutions project (5200466), approved at the March 6, 2019 meeting.

One project will be removed from the following report. This is USM's Athletic Field Lighting Project (6100289, 6100305, 6100306).

One project remains on the report with a completion date of 2018. This project is complete but will remain on the list until final invoices have been processed and paperwork completed.

Please note that almost half of the current major projects being tracked are complete or substantially complete. Those details are included on the attached listing of projects.

Additional summary information is provided in the graphs at the end of this report.

#### **Bond Project Status Report:**

Four of the projects listed in the Capital Project report have or will receive designated funds from the general obligation bond that was approved by voters in November, 2018. An additional four projects which are receiving funds from the bond but which do not rise or do not yet rise to the level of Trustee consideration also are in progress. They are being reported on the separate capital project list exclusively for bond projects which was introduced at the prior meeting of the Committee. The additional projects are at UMA: Augusta Campus Welcome Center (1100077), Augusta Campus Fire Alarms (1100078), and Bangor Campus Fire Alarms (1100540); and, at USM: a Nursing Simulation Lab Science project (6100327). The Augusta Campus Welcome Center currently has an approved budget of \$400,000 as it remains in study/design phase. A request for the Board of Trustees to approve the expected full budget for this project will follow at a future date.

The format of the report dedicated to bond projects remains a work in progress. Future reports will be updated to reflect additional active Bond projects as the information becomes available.

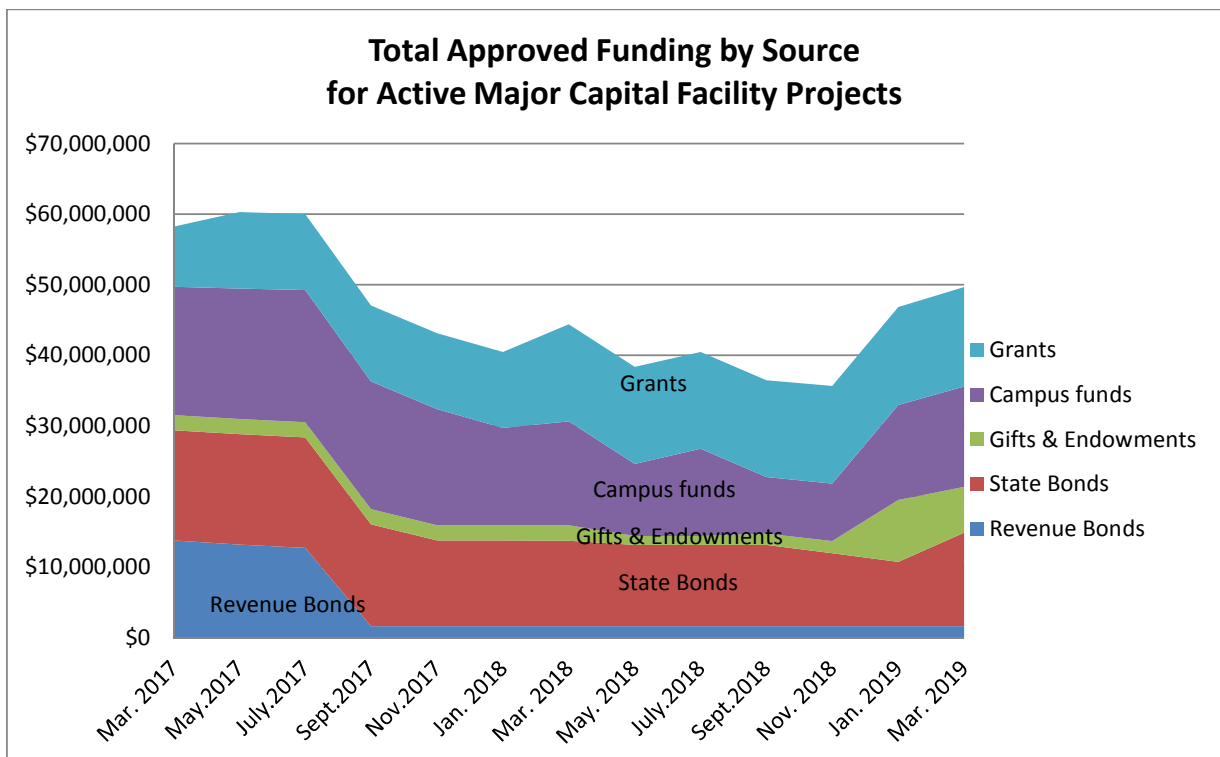
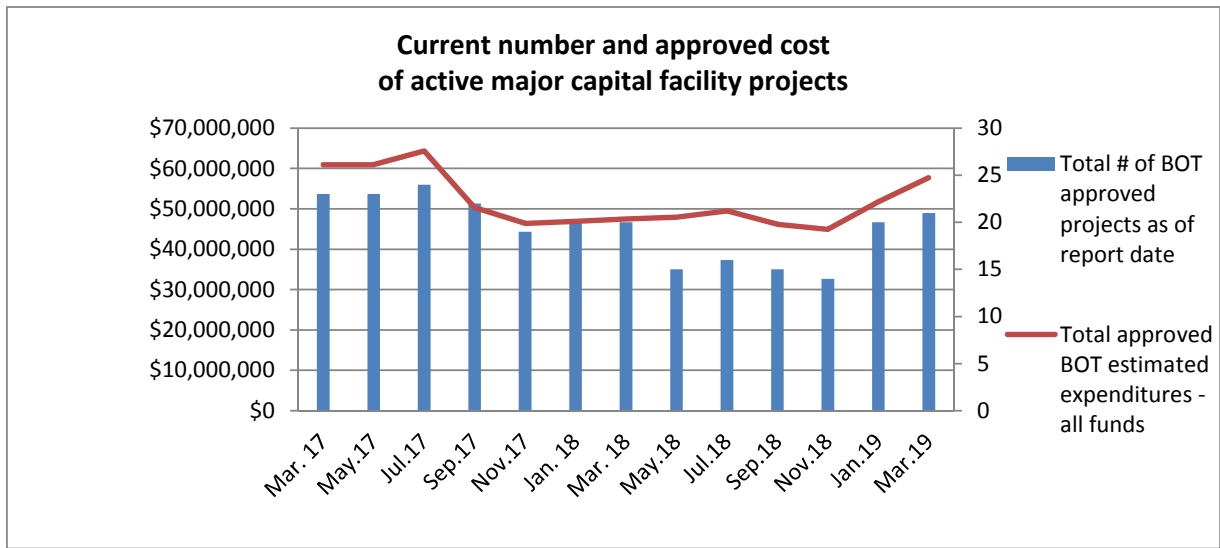
#### **UMFK Building removal:**

The University of Maine at Fort Kent (UMFK) has identified an offsite building (at 44 North Perley Brook Road) that was not fully utilized and has taken steps to remove it from the University's inventory through sale. While the size and scope of this removal does not rise to the level of Board approval, it is being noted as a reminder that all of the campuses continue to look for ways to reduce their footprint and improve their efficient use of space.

#### **USM Portland Housing P3 Update:**

As reported in the October meeting of the Finance, Facilities and Technology Committee, the University of Southern Maine is pursuing a Public Private Partnership development approach for a housing project on the Portland campus. As a result of the previously reported solicitation process the University engaged the services of Brailsford & Dunlavey (B&D) of Boston, Massachusetts. Since early February the team from B&D has met several times with the University's core team and administrators, and has conducted market research, including surveys and meetings with focus groups. The next big step in the process is to issue a request for qualifications (RFQ) to solicit qualified firms who will eventually provide bids on the final package. The team is currently drafting the RFQ and plans to issue it in early May. This solicitation is for qualifications only and is not the full project itself. Request to proceed with the actual P3 solicitation is likely forthcoming in the next meeting.

05/09/2019





**Capital Project Status Report**  
**Board Approved Projects**  
**May 2019 - Board of Trustees**  
**With Grand Totals and % of Current Approved Estimates**

Campus, Project Name (Project ID)	Funding Source(s) & each source's share of expenditures to date	Status	Original Estimated Completion	Current Est. Completion	Original Approved Estimate	Current Approved Estimate	% Expended of Current Approved Estimate	Prior Actions, Information & Notes
<b>UM</b>								
Advanced Structures and Composites Center Expansion/ASCC Equip W2-Thermoplastics Lab/ASCC Equip W2 Tow Carriage (5100316, 5100414, 5100432)	Grants (84%), 2010 State Energy Bond (12%), Gifts (4%)	Project 5100316 is Complete, Project 5100414 Design in Progress, Project 5100432 is Construction in Progress	2014	2019	\$6,400,000	\$10,400,000	91%	Board Approved \$6.4M in November, 2012. Board approved \$1.6M in March 2014. Board approved increase of \$871,000 in March 2015. BOT approved additional \$1.5M in May 2016 for equipment project.
Cooperative Extension Diagnostic & Research Lab (5100387)	2014 State Bond (85%), Campus E&G Funds (10%), Grants (5%)	Substantially Complete	2016	2019	\$9,000,000	\$9,600,000	98%	BOT approved \$9M in July, 2015. Board approved increase of \$400,000 in July 2017. Chancellor approved additional increase of \$200,000 in February, 2019.
Aquatic Animal Health Facility (5100440)	Grants (85%), Campus E&G Funds (15%)	Substantially Complete	2017	2019	\$2,300,000	\$2,870,000	94%	Board approved \$2.3M in January, 2017. Board approved increase of \$500,000 in November, 2017. Chancellor approved additional increase of \$70,000 in February 2019.
Barrows Hall ESRB Lab Renovations (5100424)	Campus E&G Funds (100%)	Complete	2017	2018	\$1,900,000	\$1,900,000	83%	Board approved \$1.9M in March, 2017
Darling Marine Center Waterfront Infrastructure (5100459, 5100460, 5100461)	Grants (100%)	Bidding	2017	2019	\$3,000,000	\$3,000,000	11%	Board approved \$3M in July, 2017.
** Engineering Education and Design Center (5100458, 5100493)	Bond Proceeds (33%), Campus E&G Funds (67%), Gifts (0%)	Design in Progress	2024	2024	\$1,000,000	\$9,000,000	17%	Board approved \$1M in September, 2017. Board approved additional \$8M in May, 2018. Initial occupancy of this facility is expected in 2022; final completion in 2024.
Wells Commons Generator (5100433)	Campus Auxiliary Reserves (100%)	Substantially Complete	2019	2019	\$525,000	\$525,000	61%	Board approved \$525,000 January, 2018.
CCAR EDA Hatchery Building Roof Replacement (5100456)	Campus E&G Reserves (100%)	Design in Progress	2019	2019	\$562,000	\$562,000	3%	Board approved \$562,000 in June, 2018.
Hilltop Commons Servery Updates (5100489)	Campus Auxiliary Reserves (100%)	Design in Progress	2019	2019	\$925,000	\$925,000	0%	Board approved \$925,000 January, 2019.
York Hall Kitchen Hood Replacement (5100490)	Campus Auxiliary Reserves (100%)	Design in Progress	2019	2019	\$562,000	\$550,000	2%	Board approved \$550,000 January, 2019.
* UM Energy Solutions (5200466)	Campus E&G Funds (100%)	Pre-Design in Progress	2023	2023	\$5,700,000	\$5,700,000	7%	Board approved \$5.7M March, 2019.
<b>UMM</b>								
Compressed Natural Gas Heating Conversion (4100028)	Revenue Bonds (100%)	Substantially Complete	2014	2019	\$1,800,000	\$1,800,000	84%	Board approved \$1.8M in July 2014.
<b>USM</b>								
*** Athletic Field Lighting (6100289, 6100305, 6100306)	Campus E&G Funds (29%), Gifts (9%), External Lease Financing (62%)	Complete	2018	2018	\$1,780,000	\$1,780,000	92%	Board approved \$1.78M in March, 2018. Board approved execution of a tax-exempt master lease financing agreement not to exceed \$1M in May, 2018

Board of Trustees Meeting - Reports

Campus, Project Name (Project ID)	Funding Source(s) & each source's share of expenditures to date	Status	Original Estimated Completion	Current Est. Completion	Original Approved Estimate	Current Approved Estimate	% Expended of Current Approved Estimate	Prior Actions, Information & Notes
<b>USM</b>								
USM Center for the Arts (6100300)	Gifts (100%)	Pre-Design in Progress	2022	2022	\$1,000,000	\$1,000,000	0%	Board approved \$1M in January, 2018.
** Corthell Hall HVAC Upgrades (6100295)	Campus E&G Funds (100%)	Substantially Complete	2018	2019	\$550,000	\$550,000	94%	Board approved \$550,000 in May, 2018.
** Woodward Hall Renovation (6100301)	Bond (9%), Campus E&G Funds (91%)	Bidding	2019	2019	\$1,800,000	\$1,800,000	9%	Board approved \$1.8M in January, 2019.
** Ricci Lecture Hall Renovation (6100308)	Bond (0%), Gifts (3%), Campus E&G Funds (97%)	Bidding	2019	2019	\$500,000	\$500,000	7%	Board approved \$500,000 in January, 2019.
** Brooks Student Center Generator & Switchgear Installation (6100315)	Campus E&G Funds (100%)	Bidding	2019	2019	\$675,000	\$675,000	7%	Board approved \$675,000 in January, 2019.
Schematic Design of the Career and Student Success Center (6100325)	Bond (0%)	Pre-Design in Progress	2020	2020	\$1,000,000	\$1,000,000	0%	Board approved \$1M in January, 2019.
** Bailey Hall Fire Protection and Electrical Upgrades (6100316, 6100323)	Bond (0%), Campus E&G Funds (100%)	Bidding	2019	2020	\$2,580,000	\$2,580,000	3%	Board approved \$2.58M in January, 2019.
<b>UMPI</b>								
** UMPI Greenhouse (7100010)	MEIF (100%), Gifts (0%)	Construction in Progress	2018	2019	\$850,000	\$935,000	8%	Board approved \$850K in September, 2018. Board approved additional \$85,000 in January, 2019.
Explanatory Notes: * Project is new as of this report. ** Details of this project include updates since the last report. *** This project has been completed since the last report and is not expected to appear on the next report.	Funding source(s) reflects primary source(s) for project.	Calendar Year unless otherwise noted.					Percentage expended reflects total expended as of March 31, 2019 as a percentage of the current approved project estimate.	

**Bond Project Status Report**  
**Active Bond Projects**  
**May 2019 - Board of Trustees**  
**With Grand Totals and % of Current Approved Estimates**

Campus, Project Name (Project ID), Project Manager	Status	Original Estimated Completion	Current Est. Completion	Funding Source(s) & each source's share of expenditures to date	Estimated Bond Funding for Project	Bond Funding Expended	Total Estimated Project Cost	Prior Actions, Information & Notes
<b>UMA</b>								
* Augusta Campus Welcome Center (1100077) Project Manager: Sheri Stevens/Walter Shannon	Pre-Design in Progress	2021	2021	Bond (0%), Campus E&G Funds (0%)	\$1,155,000	\$0	\$3,000,000	
* Augusta Campus Fire Alarms (1100078) Project Manager: Sheri Stevens/Walter Shannon	Design in Progress	2020	2020	Bond (0%)	\$400,000	\$0	\$400,000	
* Bangor Campus Fire Alarms (1100540) Project Manager: Sheri Stevens/Walter Shannon	Design in Progress	2020	2020	Bond (0%)	\$330,000	\$0	\$330,000	
<b>Total Bond for Campus</b>					<b>\$1,885,000</b>	<b>\$0</b>	<b>\$3,730,000</b>	
<b>USM</b>								
Woodward Hall Renovations (6100301) Project Manager: Dave Carney	Bidding	2019	2019	Bond (9%), Campus E&G Funds (91%)	\$1,500,000	\$14,725	\$1,800,000	Board approved \$1.8M in January, 2019.
Ricci Lecture Hall Renovations (6100308) Project Manager: Carol Potter	Bidding	2019	2019	Bond (0%), Gifts (3%), Campus E&G Funds (97%)	\$150,000	\$0	\$500,000	Board approved \$500,000 in January, 2019.
Schematic Design of the Career and Student Success Center (6100325) Project Manager: Dave Carney	Pre-Design in Progress	2020	2020	Bond (0%)	\$19,000,000	\$0	\$19,000,000	Board approved \$1M in January, 2019. The total project cost remains under development and subject to change.
Bailey Hall Fire Protection and Electrical Upgrades (6100316, 6100323) Project Manager: Carol Potter	Design in Progress	2019	2020	Bond (0%), Campus E&G Funds (100%)	\$1,500,000	\$120	\$2,580,000	Board approved \$2.58M in January, 2019.
* USM Nursing Simulation Lab Science (6100327) Project Manager: Joe Gallant	Pre-Design in Progress	2021	2021	Bond (0%)	\$450,000	\$0	\$450,000	
<b>Total Bond for Campus</b>					<b>\$22,600,000</b>	<b>\$14,845</b>	<b>\$24,330,000</b>	
<b>Totals:</b>					<b>\$24,485,000</b>	<b>\$14,845</b>	<b>\$28,060,000</b>	
Explanatory Notes: * Project is new as of this report. ** Details of this project include updates since the last report. *** This project has been completed since the last report and is not expected to appear on the next report.	Funding source(s) reflects primary source(s) for project.	Calendar Year unless otherwise noted.						Percentage expended reflects total expended as of March 31, 2019 as a percentage of the current approved project estimate.

## **One Year Capital Plan**

### **Executive Summary**

Pursuant to prior adopted directives of Trustees, the Board is to specifically consider the capital investment portion of the annual operating budget. There is a concise presentation of that data in the budget documents that have been provided to Trustees. This briefing document elaborates on that element of the budget.

The FY20 budget being considered by Trustees includes \$15,591,188 for capital investments from Operations and, of that amount, \$7,635,154 is slated for specific capital facility improvements (including some IT).

Nearly all of those facility related resources are dedicated for specific projects as shown on the one-year capital plan, approximately 5 percent is targeted for projects yet to be determined, and the overall amount represents an increase of nearly 20 percent in budgeted investment over the FY2019 amount of approximately \$9 million.

Of these projects in the one year plan, broadly speaking, the categories include:

- Approximately \$1.7 million in Building Envelope projects (roof and façade)
- Approximately \$1.1 million in Building Systems (IT systems/cabling and MEP)
- Approximately \$1.2 million in Underground Utility/infrastructure improvements
- Approximately \$1.2 million in Space renewal and renovations
- Approximately \$2.3 million set aside as reactive projects

Beyond the FY2020 operating budget, a variety of additional resources are expected to be expended that will substantially increase capital investment in FY2020. The total identified FY2020 project expenditure/budgets across all funding sources is approximately \$50,000,000.

This includes approximately \$21 million in funding for the new Engineering Education and Design Center project; \$16.5 million in general obligation bond projects; approximately \$4 million from gifts and sources yet to be determined; and, approximately \$1 million from campus AUX and E&G reserves.

Again, looking across all funding sources for FY2020, the broad categories of anticipated investment include:

- Approximately \$26,000,000 in New Space (including EEDC)
- Approximately \$ 3,000,000 in Building Envelope projects (roof and façade)
- Approximately \$ 1,800,000 in Building Systems (IT systems/cabling and MEP)
- Approximately \$ 650,000 in Grounds infrastructure improvements
- Approximately \$ 3,000,000 in Utility infrastructure improvements
- Approximately \$11,000,000 in Space renewal and renovations
- Approximately \$ 2,400,000 for Safety/Code improvements
- Approximately \$ 2,000,000 set aside as reactive projects

This investment, while increased from FY2019, continues to fall short of the Sightlines annual investment target.

The Sightlines investment target in order to “keep up” in FY2020 is projected to be about \$40 million. This target is based on existing building need and not on new construction or infrastructure. The amount projected in the FY2020 capital plan by the University which would be applicable to the Sightlines \$40 million target is approximately \$20,000,000. That being said, the new construction will still have a positive effect on the campus metrics such as Net Asset Value (NAV) and building age profile.

Lastly, also of note, the FY2020 capital plan includes six demolition projects which are also identified in the space reduction initiative. While not investment in the traditional sense, the removal of facilities - particularly poorer condition, low net asset value facilities - can have a substantial impact on eliminating deferred maintenance and improving the average condition of the University’s facilities.



THE UNIVERSITY OF MAINE SYSTEM

# Research

AND DEVELOPMENT PLAN FY20–FY24





Maine's  
Public  
Universities  
UNIVERSITY OF MAINE SYSTEM



1865 THE UNIVERSITY OF  
**MAINE**

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THE UNIVERSITY OF MAINE SYSTEM

# Research

AND DEVELOPMENT PLAN FY20–FY24

R&D to promote industry, business,  
and community growth in Maine

**FY20–FY24**

Prepared by

**Joan Ferrini-Mundy, President, University of Maine and University of Maine at Machias**  
**Jason Charland, Director of Research Development, University of Maine**

In consultation with

University of Maine System Vice Chancellor for Academic Affairs Robert Neely  
and University of Maine System Presidents  
Eric Brown, Glenn Cummings, Raymond Rice, John Short, and Rebecca Wyke

March 25, 2019

## Executive Summary

We propose that the University of Maine System advance three R&D goals for the state of Maine over the next 10 years:

1. Make Maine the best state in the nation in which to live, work, and learn by 2030.
2. Establish an innovation-driven Maine economy for the 21st century.
3. Prepare the knowledge-and-innovation workforce for Maine.

The University of Maine System (the System), with its seven distinct campuses, its more than 5,000 employees, its 28,040 students, and its \$550 million overall budget, is a vital and vibrant asset to the state of Maine. As the heart of the state's public system of higher education, the students, faculty, and staff at the System campuses are defining the future of Maine. Our institutions provide a broad suite of educational programs designed to prepare future generations of professionals, leaders, and innovators for our state and beyond. Here, we propose a framework for research and development (R&D) for the System.

The University of Maine, the state's only public research university, has a comprehensive portfolio that addresses the most challenging problems of our time (i.e., "grand challenges") through basic and applied research, development, and commercialization, with direct impact in

Maine. We emphasize the importance of basic, foundational research in this context, knowing that the applications of the new knowledge generated from those research programs will provide unpredictable benefits to our state and our society in the decades to come.

The University of Southern Maine (USM) provides research leadership in economic, social, environmental, health, and workforce development policies that advance the state's economy. With its greater Portland location, USM advances workforce development and applied learning, and tackles the pressing community and state policy issues important to Maine people. The University of Maine at Augusta, the University of Maine Farmington, the University of Maine at Fort Kent, the University of Maine at Presque Isle, and the University of Maine's regional campus, the University of Maine at Machias, all add vital and distinctive opportunities



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for geographic and place-based R&D specialization, where researchers and students, in partnership with their communities, strive to find solutions to important challenges statewide.

*Most critically, there are active, internationally recognized scholars and researchers who are moving society forward through their scholarship and research on all of the University of Maine System campuses.*

In December 2018, the University of Maine System Board of Trustees issued a Declaration of

Strategic Priorities, the first of which is Advancing Workforce Readiness and Economic Development, with a priority action item: Strengthen research and economic development efforts to support Maine industries, and to foster business formation and expansion. The President of the University of Maine and University of Maine at Machias was charged by the Chancellor to deliver a multi-year plan by March 2019 for expanding research and development across the System.

The plan we present here has been developed in consultation with faculty, professional staff, and researchers from throughout the System; the Presidents of the System universities; and the Vice Chancellor for Academic Affairs. In particular, the findings and recommendations listed below emerged through a number of open sessions with faculty and staff, through web-based inputs to the plan, and through engagement with external stakeholders.

Maine has a history of linking university-based R&D to economic needs across the state's urban and rural landscapes. The University of Maine System has a remarkable span of research, scholarship, development, commercialization, technical assistance, policy analysis, and creative contributions across disciplines, resulting from the efforts of faculty, staff, and students. That work is of significance not only to the state of Maine, but also to the nation and world. We provide examples and discuss the importance of that diversity of scholarly work and

knowledge-building, including how such work can intersect and bolster the science and technology R&D enterprise as specified in the state's seven legislated technology sectors. Because of the emphasis on economic development, this plan includes special focus on research in science and technology, using national indicators and metrics available in those areas. To achieve the three goals listed on page two and to fulfill our missions as universities, the full, broad, and comprehensive set of creative, knowledge-building, translational, and community-engaged scholarship must be sustained, supported, and celebrated across the System.

The state of Maine, the University of Maine System, and the University of Maine are underperforming in R&D activity and expenditures.<sup>1</sup> We clearly need to boost our R&D performance as a state, a System, and a research university in order to serve Maine and its people, and to be competitive nationally. We need to establish a research focus in Maine that will support the future economy, and to ensure that all campuses are able to participate in R&D as appropriate to their missions. There are clear steps proposed in this plan that the System universities, in partnership with other entities, can implement to improve the situation.

*The findings and recommendations that follow acknowledge many*

*positive features of the current context for R&D across the System. However, for the University of Maine System institutions to collectively move to the next level and lead in the accomplishment of the three broad goals, substantial new investment from a variety of sources, as well as realignment of current resources, will be required. In addition, re-examination and reformulation of certain policies, practices, and collaborative mechanisms will be needed to support the R&D enterprise. Data from the past 20 years, along with national benchmarking, give every indication that such investment in the research, realignments, and reformulations will yield tangible benefits and significant returns for Maine's economy, its people, and, most importantly, its learners, for generations to come.*

**Strengthen  
research and  
economic  
development  
efforts to support  
Maine industries,  
and to foster  
business formation  
and expansion.**

3



## Finding One:

### Investment by the state of Maine and the University of Maine System in R&D has been essential to reach our current R&D capacity.

The Maine Economic Improvement Fund (MEIF) was established by the Maine Legislature in 1998, and the Research Reinvestment Fund (RRF) was established by the System Board of Trustees in 2015. Without these resources, it is quite possible that R&D at the University of Southern Maine and other System campuses would have been minimal, and the capacity at the University of Maine to seek and obtain external funding would have been severely impeded. These state funds have leveraged significant external funding, and enabled hundreds of students to participate in research and to be paid for that participation. To sustain and grow university-based R&D infrastructure in Maine in the next 10 years that is properly scaled to achieve the goals will require increased investment from state and System sources. It also will require re-alignment over time within campus budgets. Clear metrics and accountability expectations will be necessary to track the outputs, outcomes, and impacts of these changes. Such investment stands to raise national ranking and increase competitiveness with similar institutions in other states for federal funds, leading faculty, and excellent students to come to, and remain in, Maine. But, most important, these investments will yield benefits for the students and people of the state of Maine by enabling preparation of a knowledge- and innovation workforce to fill key positions and attract businesses to a growing state economy.

#### Recommendations:

First, we recommend that the UMS Research Reinvestment Fund be renewed for five years, at a level of \$4 million per year, beginning in FY20. Additional new selection priorities should be considered, such as partnerships with private-sector entities or local communities to solve practical problems, or collaborations among researchers on different System campuses. These investments should promote strong networks of researchers, allow adequate time for faculty to conduct research, and expand opportunities for paid student research experiences. Outcomes should include measurable return on investment (ROI), effectiveness in leveraging

external funding, and quality and impact of student engagement in research. Launching grand challenge initiatives will allow for focused investment in areas poised to grow and yield results in both the near and long term.

Second, we recommend regular increases in MEIF investment to reach a steady level of \$40 million annually by the end of FY24. This fund supports the on-campus capacity, including researchers, students, and facilities, that allows success in the intense national competition for federal research funding from the National Science Foundation, the National Institutes of Health, and other agencies. Additional MEIF resources would sustain and enhance infrastructure, and expand research capacity and expenditures in the highest-priority R&D areas for Maine's future well-being and economic success. Improving Maine's standing in national rankings of higher education expenditures in R&D will help attract R&D-intensive industry to the state. But the most important outcome of this investment will be expanded opportunity for Maine students to be educated in R&D-rich environments so they can become Maine leaders and innovators. System campuses will be asked to consistently track and report the number of students involved in R&D. In preparation for this request, by January 2020, the System should undertake an analysis of ROI and impact on the Maine economy of MEIF over its 20 years of existence.

Third, the System institutions will collaboratively develop a plan for integrating R&D expenses in the educational and general (E&G) budget, parallel to the way that instructional costs are embedded. The System's appropriation allocation model encourages campuses to look closely at R&D spending in comparison to established peer institutions. In addition, universities will consider realigning resources within their E&G budgets to provide additional support, as appropriate, for their R&D goals. We strongly urge the universities to reinvest more substantially Facilities and Administration (F&A) cost recovery back into the research enterprise.

This commitment will contribute to attracting students in Maine and to Maine by expanding the breadth of learning opportunities, including such options as paid internships with Maine companies interested in R&D expertise. Students with exposure to undergraduate research are likely to continue into our graduate offerings, establishing a pipeline, and improving the quality and capacity of the System graduate student body. These students will be prepared for the jobs of the 21st century and will be competitive in the national job market.

These changes would raise the profile of the University of Maine and other System campuses' ability to recruit students who are interested in undergraduate research, to attract and retain first-rate research faculty and graduate students, to compete for external federal funds, and to partner with the private sector to engage in R&D. All of these potential outcomes should be considered in designing accountability measures.

## Finding Two:

### Each System campus has its own unique, engaged R&D core of expertise that should be further strengthened.

Research now and in the future will have a major role in "Making Maine the most desirable state in which to learn, work, and live by 2030." Across the System, we have a rich and diverse set of research interests and capabilities, and great expertise among the faculty to continue ongoing R&D, and to undertake new lines of work in connection with their students.

Each institution has distinct identifiable strengths and emerging goals for its role in R&D, and at each university in

the System, the centrality and scope of the R&D enterprise differs. For the University of Maine, the state's comprehensive land and sea grant public research university, basic and applied research, development, and commercialization are core to the mission, and expenditures from externally sponsored research approach \$100M annually. At the University of Southern Maine, the R&D strength spans many areas, and much of the work is applied. Goals for applied learning and workforce development are important there. On the other System campuses are excellent examples of research and scholarship fully integrated into instruction and service, though with limited externally funded research.

#### Recommendations:

First, each of the System campuses should develop a five-year R&D implementation plan for increasing research expenditures aligned with the goals of this plan and appropriate to each campus. Coordination and collaboration across campuses in R&D can then be considered. Existing and emerging signature R&D strengths at the University of Maine and other campuses will provide a foundation for this effort. By connecting to those established and emerging areas of strength, all campuses can design research agendas that are tailored to specific needs of their communities and



## Research and Development PLAN 2019

geographic regions, that suit the interests and expertise of their faculty, and that will engage their students. Coordinated and public campus plans will be useful to potential new businesses and partners.

Second, the System universities, working together with Associated Faculties of the Universities of Maine and Human Resources units, should design and implement creative approaches to joint faculty appointments, including membership in the University of Maine Graduate Faculty. Such appointments will help to reduce barriers to conducting research and allow direct engagement with doctoral students. R&D faculty and student exchange and residency programs will be considered. The idea is to cultivate more cross-campus R&D collaboration that will generate tangible results for specific problems in Maine.

Third, the universities should collaborate on data governance in R&D to achieve consistency in reporting and to ensure appropriate credit for R&D expenditures. Methods to consistently include credit for a range of types of scholarly production should be explored when national surveys are not sufficient. By addressing these matters, we would support accountability and enable measurement of progress. In addition, we should assess System-wide access to research databases of interest to researchers and scholars on multiple campuses, and create cost-effective solutions.

### Finding Three:

**Across the University of Maine System, we have been failing to compete as well as we should for significant federal funding, and our facilities, infrastructure, and administrative support for R&D are inadequate in several fields important to Maine's future.**

The System as a whole is underperforming in higher education R&D expenditures. Between 2007 and 2016, Maine's total R&D expenditure declined nearly 40 percent — the largest decline of any state over that period. There are dozens of federal competitive grant programs available across the major science agencies<sup>8</sup> annually in R&D areas of relevance to the state of Maine for which few or, in some cases, no applications are made from System universities. This unacceptable situation results from a combination of lack of faculty with expertise or interest in key areas; insufficient administrative capacity to support proposal planning and submission; inadequate faculty time to prepare proposals because of competing teaching and service loads;

and lack of graduate students, postdoctoral associates and technicians. In addition, there is a critical need for improved facilities; acquisition of modern and innovative instruments, and research resources; and procedures for sharing equipment and instruments. Sometimes, faculty cannot pursue research funding opportunities because the needed equipment and facilities do not exist in the System, or the costs of compliance and purchasing licenses would be too great for faculty to cover from their own research budgets. Other similar universities have this research infrastructure in place, which puts our faculty at a disadvantage when competing for federal grants.

And there are opportunities to engage undergraduate students in research that are not being realized because of the lack of needed equipment and personnel. Improving modernized equipment has the added benefit of training our students for the jobs of the future that would use this instrumentation. All campuses report a large need for more administrative support in R&D. *Despite all this, we believe that System faculty and staff are resourceful and deeply committed to their students, their research, and to Maine, and that we can remedy much of this situation with relatively modest resources, and increased coordination and communication.*

#### Recommendations:

First, assuming availability of additional resources from combined sources, the universities will review and address needs for coordinated hiring of faculty in key areas of importance to the state as determined, for instance, by System Board of Trustee goals, or recommended in the reports of the Maine Economic Growth Council or the economic growth plan currently under development through the office of the Governor. Similar coordination or information-sharing should be applied to hiring of postdoctoral associates, technicians, and graduate students.

Second, a System-wide inventory of R&D instruments and facilities should be assembled and made available to all new faculty. The Coordinated Operating Research Entities, or CORE, pioneered at the University of Maine, provides a model for the System to emulate. Campus master plans should address needs for expanded and renovated R&D facilities.

Third, the comprehensive research administration and development capacity currently in place at the University of Maine should be made available to support faculty research needs across the System. Inter-campus research

administration collaborations between the University of Maine and other System campuses have been established (e.g., with the University of Maine at Machias and the University of Maine at Fort Kent). Research administration services also exist at the University of Southern Maine. Both the University of Maine and University of Southern Maine house expertise for research compliance, which could become shared resources with other System campuses.

### Finding Four:

**Across the System undergraduate students are engaging in authentic research experiences and community-engaged research initiatives that are benefitting the region and the state.**

The opportunity to participate in research, development, and commercialization activities is highly attractive to undergraduate and graduate students, and many faculty across the System are effectively integrating research with instruction, including community-engaged research on problems of specific local interest. In the various listening sessions conducted during the development of this plan, faculty shared many examples of such student experiences. However, this student involvement is not as widespread or systematic as would be necessary to attract many more students to System institutions, and help retain them.

#### Recommendations:

First, the System must provide leadership in incentivizing and enabling every undergraduate student in the University of Maine System to have a meaningful/authentic experience in research, scholarship, development, creative production, policy analysis, translation, or commercialization. System Program Innovation Funds should be considered as a resource.

Second, Course-based Undergraduate Research Experiences, and other similar evidence based courses, should be piloted and evaluated across the System according to campus capacity and interest, supported with campus resources. Impact on recruitment, enrollment, and retention will be assessed, as well as the ability of students to obtain paid summer internships and employment after graduation, and whether students remain in Maine.



## Finding Five:

**The private and nonprofit sectors and the Maine state government are eager for expanded R&D interactions with higher education.**

Private-sector entities already partner in R&D relationships with several System universities, with a large number at the University of Maine. External companies considering moving to Maine also have expressed great interest in partnering with the University of Maine System to extend their R&D capabilities. However, for those interested entities, sometimes locating the best System research experts and gaining access to R&D capabilities is challenging. If System institutions were more easily able to partner well with private-sector industries and businesses, we could tap a great source of economic stimulus in the state and opportunity for student interaction.

In the context of a dispersed and locally driven ecosystem in Maine for economic development, University of Maine System faculty and staff are deeply engaged in efforts to support commercialization, business development, incubation, and private sector needs in R&D. The System has ample capacity to grow research partnerships with the private sector as well as commercialization outputs of university research (e.g., spin-offs, revenue, and intellectual property.) Those efforts could be expanded with potential impact statewide. And, in areas of policy and business that are key to the state, including ecosystem health, health care, education, aquaculture, marine resources, and biomedical and biotechnology applications, the System institutions already are positioned, because of the breadth of their research expertise, to more systematically provide background information and analyses to the state and to the members of our federal delegation.

### Recommendations:

The universities should continue to work closely with the private and government sector to establish productive collaborations. Approaches to consider should include the creation of a Maine R&D Fellows program designed to connect System faculty, state government, Maine's federal delegation, and potential private/nonprofit partners to work collaboratively.

Second, the University of Maine should undertake a high-level review of existing doctoral programs in the STEM fields. The review should consider how program emphases align with current and projected state economic and R&D needs:

whether basic, discovery research is sufficiently supported, and whether new directions in science and technology, including convergence, machine learning, and shared datasets are being incorporated. Program consolidations, examination of how new programs are development, and other realignments should be undertaken to lead to increased production of doctoral degrees — an important part of building R&D capacity.

Third, research commercialization outputs as measured by revenue, intellectual property production, university spin-off companies, business incubation and acceleration, and formal partnerships with industry should grow significantly during the plan's implementation phase. Revenue targets should be set to grow significantly and the number of formal partnerships and spin-off outputs should double by 2025. Additionally, System institutions will engage in more robust communication of System R&D accomplishments statewide and nationally. As the Governor's economic development plan is completed, System universities should seek the best ways of providing capacity to that plan.

Finally, we call for strategic interactions with the Governor and the Maine Legislature in identifying and responding to changing priorities needing R&D inputs.

## Conclusion

The University of Maine System is committed to the improvement of quality of life and economic success of the state of Maine. Expansion of research and development across the institutions of the System will have a direct impact on that quality of life and economic success. The success of the research and development enterprise across the University of Maine System depends, ultimately, on the creativity, innovation, and productivity of the individuals and groups engaged in R&D. Their successes are essential in helping Maine's learners have access to the best, research-based education possible; obtaining external funding for research that will impact Maine and the world; sustaining the quality of research facilities, instruments, and technical staff; and fully integrating research and instruction. We must make shifts in policies, practices, and resource allocations in the System, and partner strategically with the Maine Legislature, the Office of the Governor, education systems in Maine, and the private sector to enhance the abilities of our faculty, students, and staff to be the regional, state, national, and international leaders in research that they are qualified to be, to benefit our learners and all people in Maine.



## Introduction

Consider the following:

- The state of Maine ranks 51st among U.S. states, Puerto Rico, and the District of Columbia in higher education research and development expenditures, at \$100 million.<sup>iii</sup>
- The state of Maine ranks 45th among U.S. states, Puerto Rico, and the District of Columbia in total research and development performance with a total expenditure of \$508 million.<sup>iv</sup>

Research and Development (R&D) expenditures are directly tied to leading indicators of a state's economic health — employment, wages, prices, and productivity. To address the University of Maine System (the System) Board of Trustees' priority to advance workforce readiness and economic development, it is imperative to develop and implement sound strategies to increase higher education research and development expenditure in Maine, and to support business and federal R&D performance increases in the state.

The context is complex, and the plan proposed here is multi-faceted and long-term. The proposed goals to guide this strategy are:

- Make Maine the most desirable state in the nation in which to live, work, and learn by 2030.
- Establish an innovation-driven Maine economy for the 21st century.
- Prepare the knowledge-and-innovation workforce for Maine.



## Research and Development PLAN 2019

**Background**

The University of Maine System (the System), with its seven distinct campuses, its more than 5,000 employees, its 28,040 students, and its \$550 million overall budget, is a vital and vibrant asset to the state of Maine. As the heart of the state's public system of higher education, the students, faculty, and staff at the System campuses are defining the future of Maine. Our institutions provide a broad suite of educational programs designed to prepare future generations of professionals, leaders, and innovators for our state and beyond. Here, we propose a framework for research and development (R&D) for the System.

The University of Maine, the state's only public research university, has a comprehensive portfolio that addresses the most challenging problems of our time (i.e., "grand challenges") through basic and applied research, development, and commercialization, with direct impact in Maine. We emphasize the importance of basic, foundational research in this context, knowing that the applications of the new knowledge generated from those research programs will provide benefits to our state and our society in the decades to come in ways that cannot be predicted today.

The University of Southern Maine (USM) provides research leadership in economic, social, environmental, health, and workforce development policies that advance the state's economy. With its greater Portland location, USM advances workforce development and applied learning, and tackles the pressing community and state policy issues important to Maine people. The University of Maine at Augusta, the University of Maine at Farmington, the University of Maine at Fort Kent, the University of Maine at Presque Isle, and the University of Maine's regional campus, the University of Maine at Machias, all add vital and distinctive opportunities for strategic, geographic, and place-based R&D specialization, where researchers and students, in partnership with their communities, strive to find solutions to significant challenges that span our state.

**Most critically,  
there are active,  
internationally  
recognized  
researchers and  
scholars who are  
moving society  
forward through  
their work on each  
of the University  
of Maine System  
campuses.**

**Charge**

On December 18, 2018, the UMS Board of Trustees endorsed a "Declaration of Strategic Priorities to Address Critical State Needs." The first of its four goals for the System is:

**Goal One:  
Advancing Workforce Readiness and  
Economic Development**

*The state of Maine's declared higher education public policy requires UMS universities to cooperate among themselves and with Maine businesses to develop educational programs that produce critical thinkers with adaptable, transferable skills who will advance the Maine economy. Given Maine's demographic and economic challenges, and workforce needs, UMS must strategically manage a collaborative, student-centered public higher education system that maximizes learner employability, and economic opportunity and development. It is characterized by flexible, 21st-century lifelong learning opportunities, business and economic development, and research that drive economic innovation, all derived from effective partnerships and continuous feedback among students, parents, public education systems, policy makers, and employers."*

The Board further specified the action to: "Strengthen research and economic development efforts to support Maine industries, and to foster business formation and expansion," with a deliverable of a "multi-year plan for prioritizing expanded research and development across the University of Maine System."<sup>vi</sup>

This document is the deliverable specified by the Board. Its process of development is described in Appendix A.



### Historical highlights: Research and development in the University of Maine System

**University of Maine**

The University of Maine (UMaine), founded as the Maine State College of Agriculture and the Mechanic Arts in 1865, carries the charge to "promote the liberal and practical education of the industrial classes."<sup>vii</sup> UMaine was established as the state of Maine's land grant institution, maintaining this status into the modern System era. This mandate was historically focused on agriculture and engineering, an orientation strengthened by the 1887 Hatch Act that directed land grant institutions to share "information gleaned from the experiment station's research to the state."<sup>viii</sup> Experiment stations were an expansion of the traditional educational mission into the domain of research. As noted in a 1995 report on agricultural colleges prepared for the National Academies Press, "the 1862 Morrill Act had tasked land grant colleges with the education of future generations. The 1887 Hatch Act formally introduced research to their suite of activities."<sup>ix</sup>

Research and education naturally led to arenas beyond the agriculture and mechanic arts first envisioned at the institutions' founding nationwide. Arthur Andrew Hauck, president of UMaine from 1934 through 1958, also was one of the foremost historians of the early era of the university's history. In his 1954 work *Maine's University and the Land-Grant Tradition*, Hauck describes how the university evolved to "maintain strength in those courses which seem best adapted to the resources and needs of the State. [This led to the] establishment of a department of Forestry, in 1903, and of a course in Pulp and Paper Technology in 1913."<sup>x</sup> Under Hauck's leadership, the university developed a Department of Industrial Cooperation, intended to make "research staff and facilities available to Maine industry."

Collaboration with industry in the service of the state has continued ever since. The ongoing role of the University of Maine in linking educational and economic development pursuits can be seen in the recent, well-received report "Forest Opportunity Roadmap/Maine."<sup>xii</sup> This is a framework for a public-private partnership, designed to ensure the economic future of Maine's forest industry. Research is at the core of this plan and statewide implementation is underway.

## Research and Development PLAN 2019

The time is right to consider similar initiatives, in such areas as aquaculture, agriculture, and the biomedical fields in order to expand partnerships to enhance the Maine economy through R&D.

Land grant universities have unique responsibilities. Educators at these institutions also must drive research efforts, and researchers must be engaged as teachers. The knowledge generated in these twinned pursuits is of practical use to the state. Today, the University of Maine is a land grant and sea grant university, maintaining the mission of educating our state's learners in the context of internationally recognized research serving Maine. Additionally, University of Maine Cooperative Extension's local engagement with communities, farmers, small businesses, and youth catalyzes community-driven research and development in Maine statewide.

Today, UMaine's R&D strengths are in engineering; marine sciences; science, technology, engineering and mathematics (STEM) education; climate change; advanced materials for infrastructure and energy; forestry and the environment; data science; sustainability solutions and technologies; finance; Northeastern America's humanities; and aging.<sup>xiii</sup>

The University of Maine at Machias (UMM) was founded in 1909 as a normal school to prepare teachers, as advocated for by the citizens of Machias.<sup>xiv</sup> UMM became a degree-granting institution in 1952 and joined the University of Maine System in 1968, where continued public advocacy transformed the school into a four-year degree-granting institution, with strengths in biology and science, as well as education. UMM became a regional campus of UMaine on July 1, 2017. Research interests include aquaculture, geospatial sciences, biology, and psychology and community studies.

#### University of Southern Maine

The University of Southern Maine provides leadership to enhance Maine's future through innovative economic, social,

environmental, health, and cultural research, and workforce development policies and initiatives to help drive the state's economic prosperity. The university was founded as a teacher's college in Gorham in 1878. At the end of 1918, Portland University was established as a school for accountants. From these two institutions, the modern University of Southern Maine was born. Billing itself as "northern New England's outstanding public, regional, comprehensive university," the University of Southern Maine

is "dedicated to providing students with a high-quality, accessible, affordable education. Through its undergraduate, graduate, and professional programs, faculty members educate future leaders in the liberal arts and sciences, engineering and technology, health and social services, education, business, law, and public service."<sup>xv</sup> With a research legacy that stretches back to its time as the University of Maine Portland-Gorham, the University of Southern Maine has long distinguished itself in multiple fields. Current research activities "promote knowledge, discovery, and creative solutions that advance Maine's economy, communities, and the quality of life for all Maine citizens; strengthen classroom education and transform the lives of students through real-world learning opportunities; and support faculty and staff commitment to excellence in scholarly accomplish-ments regionally,

nationally, and internationally."<sup>xvi</sup> Research interests include domestic violence, children in danger, the opioid crisis, strategic tourism and hospitality, elder health policy, research compliance, marine science, education, environmental entomology, survivability of Maine rural hospitals, and the economic development of Maine cities and towns.

#### University of Maine at Augusta University of Maine at Farmington University of Maine at Fort Kent University of Maine at Presque Isle

The University of Maine at Augusta, founded in 1965 by the Maine Legislature, was intended as a community-based,

two-year degree program for the University of Maine. It quickly developed into an institution offering two- and four-year degrees in the University of Maine System, and today operates at campuses in Augusta and Bangor, as well as online.<sup>xvii</sup> Research interests include sociology, aging, psychology, criminal justice, community-based participatory research, mental health and human services, biology, and bioethics.

The University of Maine at Farmington (UMF) was founded in 1864 as the first public normal school in the state of Maine, with a mission to train educators. Joining the University of Maine System in 1968, UMF retained its public liberal arts orientation (it is a founding member of the Council of Public Liberal Arts Colleges) and added a graduate program in education in the first decade of the 21st century.<sup>xviii</sup> Research interests include early childhood education, instructional technology, experiential learning, literacy, biology, aquaculture, and K–12 education.

The University of Maine at Presque Isle was founded as the Aroostook State Normal School in 1903 and joined the University of Maine System in 1968, assuming its current

name in 1971. From its early mission of educating teachers, the institution has evolved to offer a suite of undergraduate degrees, both in-person and online.<sup>xix</sup> Current research areas include agriculture, biology, forestry, predictive analytics, geology, Earth and environmental sciences, and STEM education.

The University of Maine at Fort Kent was founded in 1878 as the Madawaska Training School. Operating from several locations, it landed in its permanent home in 1888. As the school evolved into a four-year degree-granting institution, it joined the University of Maine System under its current name in 1970 and added an array of liberal arts majors to its traditional strengths in education.<sup>xx</sup> Research interests include forestry, biology, and rural development.

A wealth of examples demonstrates the growth and evolution of the System institutions in synergy with the needs of the state of Maine. In the writing of this plan, it became clear that development of new knowledge and understanding across fields, research-based partnerships with communities and the private sector, and commitment to solving problems for Maine resonate throughout the System.





## The Role of Research Universities

U.S. research universities emerged in the post-Civil War years, and much has been written about their role.<sup>xvi</sup> A key development was the recommendation of Vannevar Bush (1945) that the United States government should provide federal funding to support science in the nation's research universities. He wrote: "First, we must have plenty of men and women trained in science, for upon them depends both the creation of new knowledge and its application to practical purposes. Second, we must strengthen the centers of basic research which are principally the colleges, universities, and research institutes. These institutions provide the environment which is most conducive to the creation of new scientific knowledge and least under pressure for immediate, tangible results. ... It is only the colleges, universities, and a few research institutes [in contrast to research and industry and government] that devote most of their efforts to expanding the frontiers of knowledge. ... Basic scientific research is scientific capital."<sup>xvii</sup>

U.S. universities and the U.S. system of graduate education in research is regarded as the best in the world. Jason Owen-Smith provides an argument for these universities as a public good: "Universities contribute to our quality of life because they are sources of key inputs for the many other sectors. They use public investments to support work that generates knowledge and people who know how to use it."<sup>xviii</sup> Public land grant universities comprise a major component of that system, and are the places where, in addition to basic research, a large proportion of more applied work is conducted to solve immediate problems in their states and regions.

A thriving university-based research and development enterprise is distinguished by, and requires, a number of elements: substantial university investment to enable a comprehensive research enterprise; research and scholarship in broad and diverse areas — from science and engineering to social sciences, arts and humanities; an extensive portfolio

of research-oriented graduate programs, including doctoral programs in a wide variety of fields; state-of-the-art research facilities, including large centers and institutes; faculty research performance counted as a major factor in their evaluation; and faculty, staff, and students from across the levels and units at the university, engaged in significant research.<sup>xix</sup> Research universities typically include clusters of nationally and internationally known faculty working across their disciplines on discovery, on grand challenges, and on science and engineering solutions to pressing problems; cohorts of excellent graduate students at the Ph.D. level to expand the faculty reach, become expert in needed new techniques, and to bring innovative thinking to discovery and problem solution; industry partners to enable translation of research for economic impact, and to frame new research questions driven by practice; and state-of-the-art facilities to allow experiments, technique design, testing, and development. This collection of attributes is essential to the federal funding that is necessary for research universities to thrive.

In a comprehensive research university, social scientists, humanities professors, and leaders in the arts all have crucial roles in contributing to the development of the knowledge and understanding that will move our state and our society forward. Often research in those fields is supported by the institution and other sources.

The state of Maine is home to a single public research university, the University of Maine. UMaine is the only public university in Maine categorized as a doctoral university by the Carnegie Classification; it is an "R2: High research activity university." For comparison purposes, of the other New England land grant universities, the University of Massachusetts at Amherst, the University of Connecticut, and (as of January 2019) the University of New Hampshire are categorized as "R1: Very high research activity" universities.

The University of New England also is classified as R2 after recent methodological changes allowed professional doctorate degrees to be counted in the Carnegie classification.

UMaine faculty and staff have convened to address needed steps that would lead to R1 designation, a result that is important for the entire state relative to increasing R&D expenditures, and to all universities in the System in terms of collaboration through faculty, students, infrastructure, and support for research on the campuses.

### Research, Development, and Commercialization

Because of the history in Maine of connecting university-based R&D to state economic needs, and the charge for this plan, there will be special focus on science and technology R&D, using the national indicators and metrics available in that area.

### Definition and Context

This plan is focused on research and development to propel the economy, and train the workforce for Maine and beyond. In the interest of clarity, we provide a definition of research and development that is employed by the National Center for Science and Engineering Statistics (NCSES) of the National Science Foundation (NSF), the federal statistical agency that tracks national and state indicators of R&D in science and engineering, and provides national rankings and benchmarking data. The NCSES definition reads: R&D is creative and systematic work undertaken in order to increase the stock of knowledge, including knowledge of humankind, culture, and society, and to devise new applications of available knowledge. R&D covers three activities defined below — basic research, applied research, and experimental development.

- Basic research is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view.
- Applied research is original investigation undertaken in order to acquire new knowledge. It is directed primarily toward a specific, practical aim or objective.
- Experimental development is systematic work, drawing on knowledge gained from research and practical experience, and producing additional knowledge, which is directed to producing new products or processes, or to improving existing products or processes.<sup>xxv</sup>

Throughout the University of Maine System, there is excellent work underway in all of these categories, and beyond. The University of Maine, which has achieved extensive results in all three areas, has distinctive strength in basic and applied research. The University of Southern Maine has prioritized and built strength in experimental development, policy analysis, and technical assistance. Campuses across the System are engaged in geographically situated work, much of it in the applied research category.

## Research and Development PLAN 2019

**Research Expenditures**

The most common indicator used to assess the research health of an institution is total research expenditures, which include both federal and non-federal funds. These “dollars spent” in a given fiscal year are categorized by R&D field and source of funds (i.e., federal government, state and local government, business, nonprofit, institutional, and other) in a survey of institutions conducted by NSF’s NCSES, with clear definitions and conditions for what can be reported to ensure consistency across institutions. NCSES also gathers and reports data on state and private-sector research expenditures.

The top-ranked research institutions in the country in 2003 accounted for 25 percent of the research expenditures nationally; in 2015, that dropped to 18 percent. Less research-intensive universities typically have had more state and local support to drive up their research expenditures and, thus, their capacity to contribute.<sup>xvii</sup>

Today, the University of Maine research and development enterprise, as measured by the standard NCSES Higher Education Research and Development (HERD) Survey on total R&D expenditures in 2017, is ranked 155th among 902 academic institutions surveyed. UMaine ranks lowest of all of the New England land grant universities in total R&D expenditures. The most recent HERD Survey results for public universities in Maine are in Table 1. These are important because they allow for national benchmarking in the science and technology areas that are most central to economic growth.

Research and development expenditures in a university are derived from spending on basic and applied research, and development, as defined earlier in this document. Commercialization expenditures also are critical to university research impact, but are not tracked in the HERD survey. Those activities as enacted in the System are described next.

**NSF Higher Education Research and Development (HERD) Survey Results, University of Maine System institutions in thousands**

	2013	2014	2015	2016	2017
<b>UMaine</b> Ranking* = 155	77,583	101,24	79,500	79,222	99,502
<b>USM</b> Ranking* = 364	11,725	9,408	7,091	4,773	7,147
<b>UMM</b> Ranking* = 696	379	38	Not reported	Not reported	737
<b>System total**</b>	<b>89,687</b>	<b>111,039</b>	<b>86,591</b>	<b>83,995</b>	<b>107,386</b>

\*Out of 902 total institutions. By comparison, UNH is 133; UVM 144; URI 152; UNE 350; Bowdoin 494; Colby 512; Bates 534; MMA 547.

\*\*UMA, UMF, UMFK, and UMPI did not report expenditures to HERD. This plan recommends that improved data governance practices be implemented in order for UMS to more accurately and completely report research expenditures to NSF HERD.

Table 1. NSF Higher Education Research and Development (HERD) Survey Results, University of Maine System institutions in thousands <sup>xviii</sup>

**Research Expenditures, 2008–2017 HERD Survey Data**

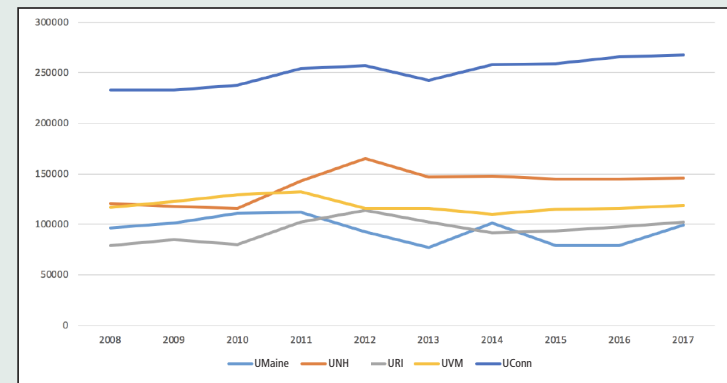


Figure 1: Research expenditures for select New England institutions according to HERD data.

For comparison purposes, we display HERD research expenditures for select New England institutions in Figure 1.

**Basic and Applied Research**

For additional framing of the research enterprise and how work can be categorized, we recommend the formulation in Stokes’ Pasteur’s Quadrant,<sup>xviii</sup> which introduces the notion of “use-inspired basic research” (see Figure 2). This includes “basic research that seeks to extend the frontiers of understanding but is also inspired by considerations of use.” (Stokes, 1997, p. 74). He also describes this as “strategic” research.

Stokes provides an historical perspective that draws on the formulation of basic, applied, development, and production research offered by Bush, the engineer whose thinking inspired the founding of NSF. Debates and philosophical discussion endure about whether pure and applied research are distinct. Bush notes “... new products and new processes do not appear full-grown. They are founded on new principles and new conceptions, which in turn are painstakingly developed by research in the purest realms of science.”<sup>xix</sup> In this discussion of research and development that will be useful to the state of Maine, we also strongly support the importance of basic (pure) research as the foundation for new applications.

**Consideration of use?**

		Yes	No
Quest for fundamental understanding?	Yes	Pure Basic Research (Bohr)	Use-inspired Basic Research (Pasteur)
	No		Pure Applied Research (Edison)

Figure 2: Quadrant Model of Scientific Research.<sup>xxix</sup>

**Development**

In the research enterprise, development incorporates the translational efforts to bring research findings and discovering to implementation in the form of processes and products. In the biomedical field, this is referred to as “bench to bedside,” and an important analogue exists for much of the research conducted in the state. Ongoing development is



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necessary to transform material science into material products, biogenetics laboratory breakthroughs into cures for disease, engineering insights into engineering practices, and chemical discoveries into chemical products. In experimental development, research knowledge is "directed to producing new products or processes or to improving existing products or processes."<sup>xxxi</sup>

More broadly, development supports the growth and vitality of the state's economy. Research and experimental development within research universities play a central role in the growth of the economy.

**Commercialization**

The state of Maine ranks 40th in Milken Institute's State Technology and Science Index ranking<sup>xxxi</sup> a measure of states' capacity in technology and science, and the state commercialization ecosystem. Commercialization is about the conversion of university-developed intellectual property to private-sector application. Channels for that conversion include technology transfer, patenting and licensing, consulting, new spin-offs, and other approaches to bringing to market knowledge and solutions that have emerged in research, and have been tested and refined in experimental

development across the "valley of death" — the gulf between viable science and viable commercial development. One kind of return on investment from basic and applied research is that which can be realized in new products and services brought to market, commercial revenue, academic startup companies, externally formed entrepreneurial activities, and licensing revenue.<sup>xxxi</sup>

In Figure 3, we indicate productivity in this area over time at UMaine, the primary producer of intellectual property outcomes in the System.

All major research universities have well-developed infrastructure to support scientists in preparing invention disclosures, filing patents, developing license agreements, and offering access to incubators and business accelerators. Such capacity is being developed at the University of Maine, and as it grows will link the research activities at UMaine and elsewhere in the System to the economic development of Maine. The primary emphasis of UMaine's commercialization activity has been developing partnerships for contracted research and commercialization and providing entrepreneurial support to encourage spin-off and startup activity. A 2017 UMaine commercialization report<sup>xxxi</sup> offers recommendations for the campus that are being

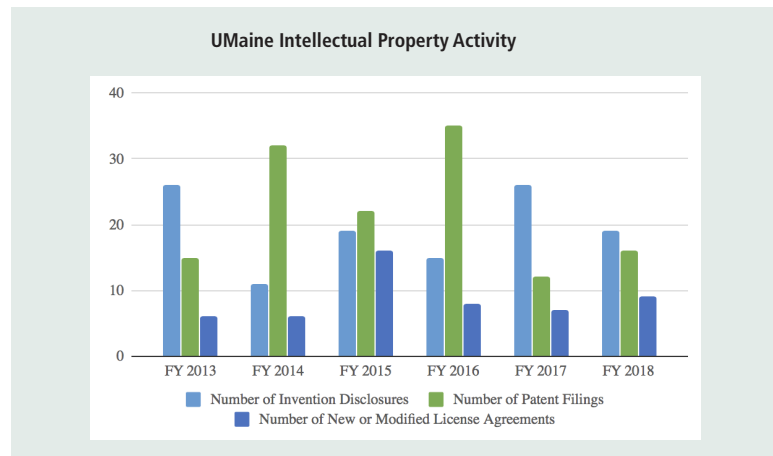
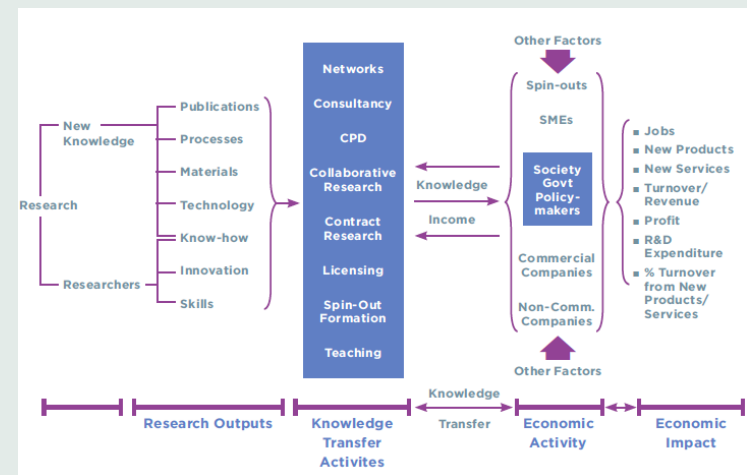


Figure 3. UMaine Intellectual Property Metrics

**Logic Model of University Knowledge Transfer**

Source: University of Glasgow. In Holi, M., Wickramasinghe, R., van Leeuwen, M. (2008). *Metrics for the Evaluation of Knowledge Transfer Activities at Universities*. Cambridge Library House.

Figure 4. Logic Model of University Knowledge Transfer

implemented now to enhance capacity in this area. The UMaine President's Innovation and Economic Development Council (IEDC) was formed to actively address policy, practice, culture, and outreach issues to advance commercialization in the University of Maine System. Figure 4 above represents a logic model that the University of Maine is examining in an effort to further articulate the economic impact of university research.

**Summary: Research, Development, and Commercialization**

In the next Figure, we provide a graphic to convey the complexity of the cyclical innovation continuum for research,

development, and commercialization. Often this is rendered a linear pathway, as in the classic characterization credited to Bush in 1945. However, in the rich environment of the System and the state, the feedback and feedforward loops are in place, and we have developed some capacity in development and demonstration, as well as commercialization. Especially important to this are the programs and capacity of UMaine's Office of Innovation and Economic Development, the University of Southern Maine Small Business Development Center and Center for Entrepreneurship, and, going forward, the System's Maine Center Ventures.



## Funding for Research, Development, and Commercialization in System Institutions

Funding and investment in R&D come from multiple sources, and the investment from those combined sources leads to research expenditures. Externally sponsored research awards fund specific work on particular studies, topics, or defined activities. Across the System, externally funded sponsored research is most heavily concentrated at UMaine, then at the University of Southern Maine, and then in smaller amounts across the other System campuses.

Over this period, the state of Maine R&D appropriation has provided critical support to the University of Maine System, most significantly through the Maine Economic Improvement Fund, debt service and bonds for System

research and development facilities, and the Maine Technology Institute<sup>xxv</sup> to catalyze commercialization. The System provides essential investment through the Research Reinvestment Fund (RRF). The universities themselves, primarily UMaine, invest educational and general fund (E&G) resources in their research enterprises. And two key federal sources — The Established Program to Stimulate Competitive Research (EPSCoR) and the Institutional Development Award (IDeA) Network of Biomedical Research Excellence (INBRE) — are mentioned here because of their importance in building research capacity across System institutions and at other research institutions, colleges, and universities in Maine.

### Cyclical Innovation Continuum

Research, Development and Commercialization

Lack of adequate funding in the “valley of death” can potentially kill a project before it makes it to production and public access.

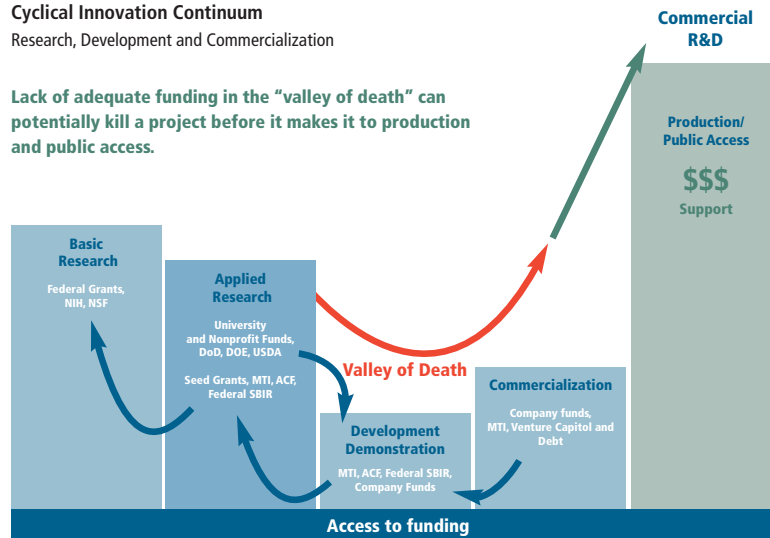


Figure 5. Cyclical Innovation Continuum for R, D, & C

### Maine Economic Improvement Fund

The state created the Maine Economic Improvement Fund in 1998 to “administer investments in targeted research and development and product innovation and to provide the basic investment necessary to obtain matching funds and competitive grants from private and federal sources. ... Research and development means applied scientific research and related commercial development conducted by the University of Maine System, its member institutions and its employees and students in the target areas.”<sup>xxvii</sup> The intention was to ensure the future vitality of the state’s economy by investing in the research capacity of the University of Maine System within the Legislature’s seven targeted technology sectors: aquaculture and marine sciences, biotechnology, composites and advanced materials technologies, environmental technologies, information technologies, advanced technologies for forestry and agriculture, and precision manufacturing. Initial appropriations were for \$4 million from the 1998 budget surplus.

The investments expected to produce such outcomes as the attraction of world-class researchers and increased external funding, leading to new statewide economic opportunities spurred by research innovations in partnership with Maine’s private sector. In FY18, the state’s \$17.35

million MEIF investment was leveraged at a rate of 3.6:1 by System campuses for an additional \$62.35 million in federal and private-sector grants and contracts in the seven sectors. UMaine and the University of Southern Maine are the two universities with established research and graduate programs in the seven targeted research sectors. UMaine has received 76.4 percent of the MEIF funds; USM 19.1 percent. Of the remaining MEIF funds, 1.4 percent are distributed to the University of Maine at Machias and 3 percent go to the other System campuses and Maine Maritime Academy.<sup>xxviii</sup>

The MEIF investment has been absolutely critical to building System capacity to support state economic development over the past 20 years. Through the MEIF investment in research capacity, the System enabled cluster faculty hires, and supported the design of new programs and associated facilities with the goal of maximizing economic impact in Maine. These programs are competitive for the federal funding that enables the universities to develop and support their science and technology research, as well as their broader scholarly missions. These resources also provide critical laboratories, facilities, and capacity that Maine businesses do not have, and help fill a gap in Maine’s R&D



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landscape that has few corporate headquarters where industry R&D typically takes place. Furthermore, these programs attract and involve students in real research applications of their education. MEIF increasingly fosters university partnerships with business and industry through economic development collaborations, entrepreneur training programs, business incubators, technology accelerators, business research, educational partnerships, and other programs. These efforts lead to new Maine-based products, technologies, patents, and spin-off businesses, in addition to enhanced workforce development.

**Specific outcomes of MEIF funding include:**

- a 60 percent increase in the number of industry contracts with the System for R&D and innovation assistance in the last 10 years, with more than 850 Maine companies and organizations served since MEIF began.
- more than 20 new businesses created specifically to commercialize university technologies since 1999.
- approximately 500 full-time System faculty and staff supported by research expenditures in FY18.
- more than 250 U.S. and international patents filed in the last 15 years.

- training of undergraduate and graduate students for jobs in Maine, with 268 graduate students and 610 undergraduate students receiving more than \$6 million in student wages, tuition, and health insurance covered by research funding, grants, and contracts in FY18.

The MEIF investment tracks in parallel with the HERD R&D expenditures (see Figure 6). In summary, the wisdom and foresight of the Maine State Legislature in creating MEIF has paid dividends for economic development in the state of Maine.

**University of Maine System Research Reinvestment Fund**

Complementary to MEIF is the System-initiated Research Reinvestment Fund. The Board of Trustees committed \$10.5 million for this initiative — \$2.1 million per year for FY15–FY19. RRF objectives are strengthening research, development, and commercialization activities that are tied to Maine businesses and to industries that are critical to the future of Maine. In these three categories, RRF has provided important resources to establish campus capacity to seek and manage external funding.

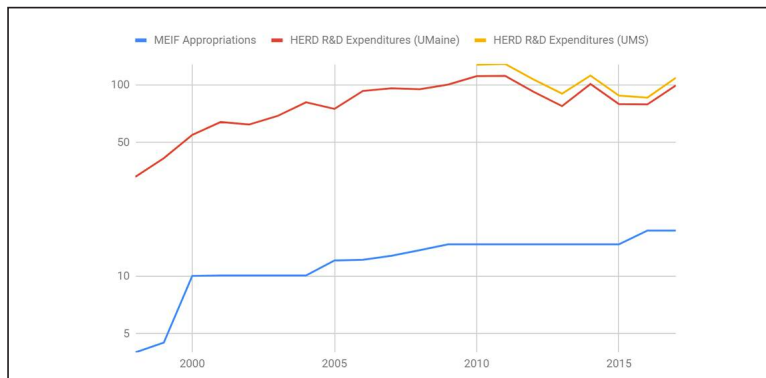
**Growth of R&D activity in Maine**

Figure 6. Growth of R&amp;D activity in Maine

**Competitive/seed grant funding to System researchers**

Since its inception in June 2015, RRF has received 454 proposals from researchers spanning all campuses. Of these applications, a total of 161 projects have been competitively selected by the RRF Advisory Board for awards totaling \$5,830,914 in grant funding. UMaine faculty have spearheaded 141 of these projects, with researchers on other campuses taking the lead on 20 projects and being actively involved as co-investigators on an additional 38 projects. This seed funding has led to \$18,188,442 in external grant dollars for a return on investment of 3.1 to 1. A total of 185 external entities were included as project partners, many of which are in the private sector and are Maine-based businesses. RRF-funded projects are aligned with various economic sectors, with the greatest investments made in aquaculture and marine sciences, education, biotechnology, environmental technologies, and advanced technologies for forestry and agriculture. The breadth of RRF funding reflects the sectors highlighted by the Maine Legislature, as well as signature strengths within the System. Sector representation includes MEIF-designated sectors, as well as sectors beyond MEIF that are of significant relevance to Maine's economy, such as education and healthcare.

**Infrastructure support to the business development enterprise**

RRF has provided funding to increase System capacity to meet strategic outcomes in the areas of business partnerships, technology transfer, and commercialization leading to economic development. The UMaine Office of Innovation and Economic Development, working with the UMaine Office of the Vice President for Research and Dean of the Graduate School, piloted formal professional development and training for faculty and staff at UMaine, to be extended to universities across the System. UMaine also created the Maine Innovation, Research and Technology Accelerator to move RRF-funded and select other projects closer to commercialization outcomes. In addition, UMaine secured funding from the National Science Foundation to establish Maine's first I-Corps site<sup>xxxxiii</sup> to help faculty and graduate student teams identify market opportunities for their innovations. In addition, RRF allowed the Office of Innovation and Economic Development at UMaine to expand commercialization capacity within UMS, facilitating industry engagement and partnerships. This enables regular, systematic intercampus collaboration on economic development initiatives.

**Infrastructure support to the research enterprise**

RRF investment enhances the research infrastructure System-wide through staff positions in the UMaine Office of Research Administration (ORA) and the Office of Research Development (ORD). ORA manages and administers extramural grants and contracts for UMaine, UMM, and UMFk, with discussions underway about providing similar services to UMA. ORD provides grant-writing services to faculty, primarily at UMaine, with a particular emphasis on interdisciplinary and large dollar-value grants. In addition, ORD staff conduct outreach to early-career faculty and support new researchers' ability to compete for extramural funds. In FY18, ORD staff conducted 38 separate training sessions, providing professional development opportunities to 330 faculty, staff, and students. In FY19, ORD organized the proposal development process of the \$20 million NSF EPSCoR RII – Track 1 submission, in collaboration with Bigelow Laboratory for Ocean Sciences, the University of Southern Maine, the University of Maine at Machias, and others. ORD staff also supported 12 NSF Early Career Development (CAREER) submissions and were key contributors to UMaine's first NSF National Research Traineeship (NRT) award that will train cohorts of graduate students to become the next generation of environmental conservation leaders.

Through our listening sessions on all System campuses in the preparation of this report, we learned that awareness of external funding opportunities, identification of and connections to R&D collaborators within the System, and professional staff support for research administration and research development services are desired and needed to expand R&D. Because of these limitations, the System institutions are unable to compete each year for what we estimate to be many millions of dollars of external funding from primarily federal, but also state and private-sector sponsors. There are opportunities for multimillion-dollar interdisciplinary grants; equipment and infrastructure funding; early-career faculty research support; and training grants for undergraduate and graduate students for which System faculty could be actively and, we believe, successfully, competing. Additional grants produce facilities and administration dollars that can support infrastructure and operating expenses at the universities, and could provide employment and learning opportunities for students, faculty, and staff.



University Investment

The cost of having a thriving R&D enterprise on a campus is not fully supported by external funding and, thus, research expenditures for a university comprise more than dollars coming in from external grants. R&D enterprises require many other supports, including faculty salary; undergraduate and graduate student support for engaging in research; research facilities upkeep; startup research and laboratory funds for new faculty; cost-sharing and matches for grant proposals; compliance expertise and expenses; research administration; laboratory facilities; maintenance of field sites; instruments; deployment of data collection and sensors; post-award reporting; fiscal management of externally funded awards; and research support personnel. This requires direct investment of institutional E&G dollars.

Because of its mission and scale, UMaine provides the largest relative commitment of institutional funds for R&D among the System institutions.

Maine Established Program to Stimulate Competitive Research (EPSCoR) and the Maine IDeA Network of Biomedical Research Excellence (INBRE)

In the development of this plan, EPSCoR and INBRE funding, in addition to MEIF and RRF, were referenced repeatedly by faculty across the System as being essential to their research programs and ability to support students.

The U.S. National Science Board reports in its Science and Engineering Indicators 2018 that “Academic institutions conduct just under half of the nation’s basic research and, importantly, train young researchers in the process.” xxxix

Outcomes of Maine EPSCoR Awards










1980-1987	1990-1993	1993-1996	1996-1999	2000-2003	2003-2006	2006-2009	2009-2014	2014-2019
\$4.3M	\$5.5M	\$8.8M	\$9.4M	\$6M	\$6M	\$12.7M	\$24M	\$24M
 Earth and Marine Science	 Global Environmental Change	 Wood Science and Marine Molecular Biology	 Adv. Eng. Wood Composites and Aquaculture	 Biosensors, Intel / Spatial	 Institute for Molecular Biophysics	 Forrest Bioproducts	 Sustainability Solutions Initiative	 Sustainable Ecological Aquaculture Network
Ar-dating and Heat Flow Lab	Stable Isotope Lab	DNA-sequencing facility Timber Bridge/FRP Hybrids Project	Advanced Structures and Composites Center (formerly AEWCC) Aquaculture Research Institute (formerly Center for Coop. Aquaculture Research)	Intelligent Spatial Design Technology Institute (ISTI) housed at LASST	Institute for Molecular Biophysics	Forest Bioproducts Research Institute	Sen George J. Mitchell Center for Sustainability Solutions	Capacity of Aquaculture Research Institute strengthened with new Ocean Acidification Lab

Figure 7. Outcomes of Maine EPSCoR Awards

The System fulfills exactly this role in Maine, conducting an even greater proportion of the research within the state. In this context, it is important to note that Maine is one of 26 federally designated EPSCoR states/jurisdictions, meaning that “0.75 percent or less of total NSF research funds go to recipients within a jurisdiction, averaged over the preceding three-year period.” Among this cohort, Maine ranks 15th in terms of NSF funding.<sup>xi</sup> Through this program, partnerships are developed in states among their higher education institutions, industry, government, and others to effect lasting improvements in their R&D infrastructure, capacity, and national competitiveness for research funding. Since 1980, Maine has received NSF EPSCoR funding totaling \$125 million, with oversight and coordination provided by UMaine. Highlights of accomplishments over these years include \$117 million follow-on grants for NSF-funded research; 36 patents, products, companies created; 43 faculty and 28 postdocs hired; 353 graduate students supported; and internships provided to 920 undergraduate and 239 high school students. Additionally, EPSCoR has facilitated the establishment of four research centers and three institutes.

The infographic above illustrates the research areas that major awards have addressed over the last 39 years.

A second key source of research support has been INBRE, a collaborative network of Maine educational and research institutions led by MDI Biological Laboratory and sponsored by the National Institute of General Medical Sciences of the National Institutes of Health. Since 2004, INBRE has provided approximately \$7 million for System faculty and students, as well as collaborative activities in the life, biomedical, and health sciences fields. Currently, INBRE funds are supporting genetic and bacteriological research conducted by faculty from the University of Maine at Farmington and University of Maine. Past support has gone to researchers in genomics at the University of Maine at Machias and the University of Maine. Undergraduate research experiences are funded through the summer research fellowship program, open to students from across the System and other institutions of higher education in Maine.<sup>xii</sup>





## Goals to Drive the Expansion of System Research and Development

**W**e propose the following goals for Maine, to serve as a focus expanded R&D across the System and in Maine, as well as to catalyze collaboration statewide:

- Make Maine the best state in the nation in which to live, work, and learn by 2030.
- Establish an innovation-driven Maine economy for the 21st century.
- Prepare the knowledge-and-innovation workforce for Maine.

These goals have a 10- to 20-year, long-term horizon, with expected near- and mid-term milestones and outcomes. Achieving these goals will require collaborative engagement

across the University of Maine System, with the Office of the Governor, the Maine Legislature, higher education and K–12 education, business, and industry across the state, tribal governments, and communities and municipalities, as well as greatly enhanced and wider interaction with federal and private-sector funders.

Milestones included here focus primarily on initial efforts to be undertaken by the University of Maine System and its partners, and assume clear definition of individual campus roles, missions, and expectations within the R&D environment. For each goal we propose a metric and some key milestones as a basis for implementation efforts. Strategies and emphases will evolve as milestones are completed and as context changes.

### Goal One:

#### Make Maine the best state in the nation in which to live, work, and learn by 2030.

We propose this goal as an aspiration to unify efforts across the System and beyond because of its breadth and importance for Maine, and its alignment to focused investment in R&D along several dimensions. Achieving this goal would require addressing several related “grand challenges” that focus on solutions to problems that affect people both locally and around the globe, such as energy, food production, and health and wellness. Many research universities across the country have organized grand challenge initiatives, allowing the integration of research, student learning, and public engagement to identify solutions that inherently require innovative and interdisciplinary approaches.<sup>411</sup>

Maine can address its own grand challenges by cultivating a quality of life so compelling that people are drawn to move to, and remain in, Maine, contributing to its workforce, diversity, and communities. Maine has the opportunity to build a robust infrastructure for livability, including autonomous and public transit, high-quality education and health systems, digital connectivity, cultural diversity and experiences, and abundant recreation. This goal also directly addresses the demographic challenges articulated in the Board of Trustees’ Declaration of Strategic Priorities. By investing in and elevating the status of the public higher education R&D enterprise, Maine will increase its ability to attract new and highly skilled talent for the innovation economy, as well as retain existing talent, of all ages, who currently choose to leave the state to pursue their careers.

One ranking of states’ “livability” is provided by U.S. News and World Report. The “Best States” rankings are based on metrics across categories of health care, education,

economy, opportunity, infrastructure, crime and corrections, fiscal stability, and quality of life. Maine currently ranks 22nd.

System institutions can address this goal and the related grand challenges through research and development to create new jobs in biomedicine, renewable energy, and data science/artificial intelligence. Researchers and scholars can build models for inclusion to enrich Maine through diversity;

develop strategies to reduce poverty; expand recreation and tourism; provide cultural enrichment through the arts and humanities; and create media strategies to inspire young workers and families to move to Maine. We have researchers and students who would be very committed to these directions, but we currently lack resources to pursue them in a concentrated and strategic way.

We propose an initial list of grand challenges in support of this goal that align with current and needed research and development capacity. In the implementation of this plan, we hope that other grand challenges will be formulated and advanced.

#### Grand Challenge: Build a healthier Maine

**We have researchers and students who would be very committed to these directions, but we currently lack resources to pursue them in a concentrated and strategic way.**

Maine could become the healthiest state in the nation by squarely facing the many challenges arising from its aging population, stressed health care system, and lack of sufficient awareness of healthy choices. Strategies developed in Maine could be national models to transform how we address health challenges, especially in rural settings.

System institutions can contribute through research into new opioid addiction therapies, a cure for dementia, new biopharma solutions, precision health methods, models for delivering high-quality low-cost preventative health care, data discovery to support improved health, methods for creating transportation networks embedded within the healthcare system, models for understanding the human and animal health and their connections, technologies for helping

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control vector-borne diseases, collaborative networks that assist with healthy aging, sociological approaches to addressing mental and behavioral health issues, and media strategies for raising health awareness and encouraging healthy life choices. These directions fit within the current technology sectors of biotechnology, environmental technologies, and information technologies.

### Grand Challenge: Strengthen education to increase opportunity

Maine deserves the best possible educational system in order to provide the most opportunity to its citizens, and it has a great foundation on which to build. In order to maximize opportunity for all in Maine, we must face substantial challenges, including a lack of resources, difficulty implementing the most effective educational methods at scale, the rural nature of our state, and teacher shortages in key areas. Ultimately, improvement in this area links directly to the preparation of a workforce for Maine, one that capitalizes on the multiple forms of diversity (socioeconomic status, race/national origin, ethnicity, gender, experience, family) for innovation and creative problem-solving. And it involves working closely with all education systems in the state to build on the many strengths of teachers and faculty,

and to expand effective innovations and improvements that are underway.

System institutions can contribute to achieving these goals through research on learning and pedagogy to enrich education, from preK to seniors - research that must be done collaboratively with educators across the state. That research would help us better understand effective approaches to teacher preparation, including continuing professional development; the knowledge and skills needed by teachers to successfully enable all of their diverse students to reach their full potential, including those who come from poverty or are new to this country; models for reducing gender disparities in educational opportunities and completion rates; data-science-based approaches to improving learner success and graduation rates; techniques for increasing the integration between the arts and STEM education; impactful and innovative distance and online education; and professional development programs for teachers, counselors, and community educators. Education is a key area for community-engaged and action research, working with outstanding teachers across Maine on these challenges. Our institutions can enhance their engagement in the continuing development and support of educators; provide information on research-based best practices for effective education; promote integration across disciplines; collaboration



networks that cross geographic and institutional boundaries; and develop enrichment opportunities through departments, colleges, research labs, field sites, centers, and institutes. Research and development should be a resource in continued efforts to partner with school districts, across System campuses, with other Maine higher education partners, and with the Maine Department of Education to expand innovative strategies to improve schools. It might be advisable in the first phases to focus this work in the STEM disciplines, including computer science. Some of these initiatives would fit within the information technologies sector.

### Grand Challenge: Empower rural sustainability

Maine's rural nature is both a challenge and an opportunity, necessitating the availability of education, employment, and community services, regardless of location. Expanded broadband and transportation infrastructure are critical to enabling Maine people to study and work anywhere, helping to close the income and opportunity gap between urban and rural Maine through access to expanding high-tech jobs.

System institutions can contribute to achieving these objectives through research on broadband technology, autonomous transportation, new technologies for effective distance education and collaboration, rural health care, aging in place, and the social dynamics of thriving rural communities. Additionally, such assets as Maine's quality of place, arts and cultural breadth, and our annual attraction of visitors through tourism, outdoor recreation, and seasonal residencies could be further studied in the context of economic development and rural sustainability. Many of these initiatives fit in the information technologies, biotechnology, aquaculture and marine sciences, composites and advanced materials technologies sectors.

### Grand Challenge: Address climate change and protect our natural resources

Maine is already a leader in developing new ways to reduce the progress and impact of climate change, understand the potential and vulnerabilities of our ecosystem, and protect our natural resources. We can continue to build on that leadership.

System institutions can contribute to achieving these goals through research and development about clean energy; carbon emission reduction technology; cost-effective

electric vehicles; technology and policy solutions to changing Arctic challenges; sustainable agriculture technology and practices; aquaculture; effects of ocean acidification on fisheries industries; economic models for balancing competing interests; approaches to help governments and schools be more green; and stewardship models for water, air, and marine environments. This work is encompassed in the environmental technologies, composites and advanced materials technologies, precision manufacturing, advanced technologies for forestry and agriculture sectors.

### Grand Challenge: Make Maine the Northeast's premier food basket

Maine's food production capability could be expanded by increases in aquaculture and extension of the growing season, providing both economic opportunity and a mechanism for eliminating hunger in Maine. System institutions can contribute to achieving these goals through research on effective hydroponics, low-cost solar technology, greenhouses, sustainable farming methods, diversified fishery management, and innovative forest products. System institutions have long-standing strengths in many of these fields and are poised to continue their significant contributions. The sectors addressed are aquaculture and marine sciences, and advanced technologies for forestry and agriculture.

The proposed grand challenges set the System on course to continue advancing the needs of the people of Maine. Each of these grand challenges has associated milestones that provide assessment tools for the System and the state.

### Metrics and Key Milestones for Goal One: Make Maine the best state in the nation in which to live, work, and learn by 2030

#### Metric for Goal One

Each grand challenge component will have clear metrics and public dashboards in place by the end of FY20, and multiple efforts across Maine are aimed at achieving number one status in an appropriate ranking system, such as *U.S. News and World Report*.

#### Key Milestones for Goal One

- System leadership generates statewide conversation about the grand challenge and its subcomponents, and

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announces research and development emphases for the next five years beginning in fall 2019.

- Within the System, R&D and instructional resources are directed as appropriate toward the goal and related grand challenges, beginning with implementation of the FY20 budget.
- Grand challenge initiatives are evaluated on an annual basis to optimize impact and implement needed changes on a continual basis.
- The System supports state leaders with data and research evidence in discussion of reconsideration/expansion of the current set of technology sectors to ensure a focus on growth industries for Maine, and advancement in small communities and the rural parts of our state.

## Goal Two:

### Establish an innovation-driven Maine economy for the 21st century

Through R&D, Maine's universities have a direct role in improving the economy. A strong R&D base can help attract new industry, support the expansion of businesses and industries that are here, spin off new startup companies, and educate an innovative workforce. The Board of Trustees has identified this as a key role of the System in Maine's economy: "The state of Maine has charged its higher education institutions to work together cooperatively with Maine businesses to advance the Maine economy."<sup>xiii</sup> The Board also acknowledges the role of R&D: "And the System must continue to grow the research and knowledge base that will support those emerging workforce and business needs to enable and even catalyze innovation in Maine." Growing the knowledge base, and expanding capacity in the state for business-related R&D through the System, are critical catalysts for the economy.

Gross domestic spending on R&D as a percentage of gross domestic product (GDP) for a country or a state is considered to be a leading indicator of economic success. Fortunately, for the past two decades, Maine has steadily increased its investment in R&D, recognizing the importance of this to growing the economy.<sup>xiv</sup> However, according to the Maine Development Foundation in the 2018 "Measures of Growth" update, "Maine has historically devoted less than 1 percent of our total gross domestic product to Research and Development Expenditures, below the U.S. average and well

below the New England average." The report authors continue, "R&D spending supports innovation, the ultimate driver of most economic growth," and note that "Maine's total spending on research and development was approximately 0.9 percent in 2015. The [Maine Economic Growth] Council's benchmark is 3 percent by 2020."<sup>xv</sup>

Nationally, almost two-thirds of academic R&D spending goes to basic research, largely through federal grants and awards. Applied research constitutes 28 percent and development 9 percent. In Maine's case, MEIF funds are directed by statute to support applied research and development. At the same time, any overall increase in R&D expenditure that preserves the important university role in basic research will require the universities to increase their capacity for external funding, largely from the federal government.

With additional resources and capacity from the state, the System, and from within the universities, our productivity in seeking and receiving external grants can increase. In terms of real-dollar federal funding obligations for science and engineering R&D, Maine ranks 47th among states in external funding across agencies (compared to New Hampshire at 34th). Of particular concern are the state's rankings with U.S. Department of Agriculture and National Science Foundation at 48th.<sup>xvii</sup> Additional external support would also provide funding for more graduate students. According to the same federal data, among states and localities including Washington D.C. and Puerto Rico, Maine ranks 51st in total number of sciences, engineering, and health graduate students, and 52nd in science, engineering and health postdoctoral appointees.<sup>xix</sup> There are few appropriate placements for postdoctoral scholars across the System and, at present, opportunities are limited to UMaine. For Maine, increased federal funding allows for support of more undergraduates in paid internships and lab experiences, tuition support for graduate students, expertise, and facilities to be shared with current and potential business and industry partners.

Nationally, distribution of academic R&D expenditures is shifting, with life sciences receiving the largest share (57 percent) in 2016, followed by engineering at 16 percent.<sup>1</sup> Within engineering, the growth areas are bioengineering and biomedical engineering, and both fields are currently very strong in Maine. Other non-science and engineering fields, such as education, business, and the humanities, accounted for just under 6 percent of total academic R&D spending.<sup>11</sup>

Those fields are critical to enhancing the quality of Maine as a place to live, work, and learn, and, thus, will need more state and institutional support.

### Increasing R&D-intensive business industry in Maine

In comparison to other states, Maine is still building its industry-led R&D. Historically, the focus in this state has been on agriculture, forestry and timber, fisheries, and manufacturing. Although many of our industries are R&D-dependent, often that R&D is occurring at national and international headquarters, rather than in Maine. Yet at UMaine and across the System, research and development are underway that support growing and emerging industry here, ranging from aquaculture, to repurposing of forest biomass, to renewable energy, to cellulose nanomaterials, to biomedical engineering, to aging. One way that universities can help draw business to Maine is to have the students, faculty, and facilities available to support targeted applied research, development, and incubation activity customized to

industry needs and expectations. University-private sector partnerships can be developed to support research and development of interest to Maine industry. These types of partnerships can further build R&D connections, expand specialized capacity for development, and help establish workforce pathways. The UMaine University Research Council produced a plan in 2012<sup>iii</sup> that included a goal to "increase industry-funded research projects from the FY10 level of \$4.5 million to \$9.0 million by FY17." UMaine has not achieved that goal; in FY18, partnerships are at about \$5 million. We can help to grow jobs and new business by having an attractive R&D ecosystem for Maine, with System institutions playing a central role.

In 2014, Evan Richert advocated for increased R&D spending by businesses in the state of Maine in the frequently cited "30 and 1000" report.<sup>iii</sup> The report projected that "if 30 percent of the state's adults had at least four-year degrees, and if businesses, academia, and government were spending \$1,000 per employed worker on research and development, Maine's per capita income would reach the national average."<sup>iii</sup> This would rest on a combination of





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higher education, state, and industry R&D investment. Richert recommended two pathways to enhance industrial investments in R&D in Maine: First, “retool sectors in which Maine has been traditionally strong [...] but that are typically low R&D performers” (e.g., the wood products sector, as it shifts to engineered wood composites and forest bioproducts); secondly, to work with sectors that are “high R&D performers [...] in which new technologies and applications provide new options for Maine businesses to penetrate the sectors,” (e.g., pharmaceuticals, or chemical, biological, and particle-detection and analytical instruments).<sup>16</sup> System institutions already have been instrumental in the first, and are well poised, in partnership with the state and the private sector, to advance the second.

Essential to enhancing statewide R&D expenditure and impact on the economy is a robust, coordinated approach to innovation derived from all forms of research activity, and to engage students in that activity as preparation to be future leaders in Maine. This means cultivating innovators and entrepreneurs, supporting the identification and disclosure of intellectual property, enabling spin-off and spin-out companies growing out of university-based research, developing product development collaborations, and facilitating licensing agreements with commercial partners. In addition, partnership with the outstanding Maine research laboratories and private universities can expand the impact of work based in the public university system.

There is federal support for promoting growth of small businesses through the Small Business Innovation Research program (SBIR) and the Small Business Technology Transfer program (STTR). In 2014–16, Maine ranked 35th of 52 states and territories nationally in SBIR/STTR receipts, up from 38th in the 2012–14 data. This is encouraging and is an area on which to build. At other points in time, Maine has been significantly higher in the table (13th in 2004–06, 15th in 2006–08; above the national average in both instances). This suggests that, relative to the overall economy of Maine, federal funding for commercialization and small business expansion represents a meaningful opportunity for growth. The universities can be very helpful partners in these ventures, and can provide pathways for student engagement that could lead to new and expanded business in Maine.

In Maine, patent activity has increased dramatically over a 50-year span. Between 1963 and 2015, patent filings in Maine per capita increased 215 percent, an increase in keeping with growth in the top third of all states with

increased filings. Relative to other states, there is still ample growth potential in Maine. This would involve increased patent applications through the System, and also through companies whose corporate headquarters are in Maine. In recent years, UMaine has been the source for the majority of patent disclosures and new companies launched on the basis of university research. Today, UMaine, Maine Center Ventures, and the University of Southern Maine all are engaged in supporting business incubation, acceleration, and commercialization that impact Maine’s businesses in critical ways. There is great demand from students and private-sector entities for expansion and statewide access to these opportunities.

### Metric and key milestones for goal two: Establish an innovation-driven Maine economy for the 21st century

#### Metric for Goal Two

Increase total R&D expenditures across all sources in Maine to 3 percent of Maine’s Gross Domestic Product by FY30.

#### Key Milestones for Goal Two

- Resources and expertise in System laboratories and research groups in the state’s seven priority technology sectors are strategically developed and deployed to help attract R&D-intensive industry to Maine, and to expand the R&D capacity of current Maine industry by fall 2020.
- All System campuses have increased five-year R&D expenditure goals, consistent with institutional strengths and mission, in response to System incentives, partnerships, shared personnel (in collaboration with the AFUM and Human Resources), common infrastructure and other approaches by fall 2021, and consider agreeing to a goal of doubling current expenditures from external (federal and private) sources by FY25.
- State of Maine base investment in System R&D is increasing to support the personnel, facilities, and infrastructure essential to a public university system R&D enterprise that substantially engages Maine students.

## Goal Three:

### Prepare the knowledge-and-innovation workforce for Maine

Key to the growth of R&D in a state or nation is the presence of educational systems and institutions that prepare the learners who will work in the emerging industries; who will invent the ideas, techniques, and technologies of those industries for the future; and who are prepared to work across disciplines, with diverse teams, to solve yet-unimagined problems. For Maine, this means ensuring that our public research university and all public education institutions prepare students to work with — and to become — the discoverers, inventors, innovators, and business leaders of tomorrow in Maine, and that the universities are adequately resourced to provide that preparation. The impact of thousands of graduates of System universities ready to enter the Maine workforce, equipped with state-of-the-art knowledge about innovation and problem-solving in fields and sectors key to Maine’s future, will be enormous.

A fundamental aspect of the environment for this kind of preparation is having active researchers working directly and extensively with undergraduate and graduate students. This engagement occurs in university classrooms, in course-related labs, in research labs, in field sites, in community-engaged partnerships, and in connection with internship and external work experiences.

*U.S. News and World Report* posted “10 reasons to go to a research university” that apply to Maine. Several of its points are particularly pertinent: “Courses at research universities often incorporate the latest research.” The article continues, “Faculty can be more energized/Faculty at research universities are often making genuine discoveries; there are state-of-the-art facilities; you could get an advantage for admission to graduate and professional schools; you can network with distinguished and well-placed people in the field.”<sup>17</sup> This kind of outstanding educational opportunity is present in Maine, not only at UMaine, but in key areas in other parts of the System, as well. Those include, for example, health policy at the University of Southern Maine, education at the University of Maine at Farmington, biology at the University of Maine at Augusta, marine sciences at the University of Maine at Machias, agriculture at the University of Maine at Presque Isle, and forestry at the University of Maine at Fort Kent.

### Uniquely powerful learning experiences through research for all students

Perhaps most importantly for Maine, the universities provide uniquely powerful learning experiences for the students who will graduate from their programs and become Maine’s workforce, particularly for those whose professors are active researchers and scholars. Those faculty are working daily in their labs, generating new knowledge that is helping to solve challenges in Maine that range from the effective use of nanocellulose from forest biomass, to diagnosing and seeking cures for disease, to engineering structures that will revolutionize the production of renewable energy, to creative works that sustain our culture and enrich our quality of life. And they also are working daily in their classrooms, engaging with students who have a front-row seat to the discovery, creation, and innovation their professors are providing. At UMaine, many students have the opportunity to have a research experience in their classroom, a lab, or a field site. Across the System, students are working in communities, alongside their professors, to bring research to bear on local challenges and problems. Because their education in a research university centers on the development of these skills, these students learn how to be creative problem solvers, how to apply principles of science and engineering in unexpected contexts, and how to collaborate and work across disciplines.

In describing the need for “knowledge workers” in Maine, Richert (2014)<sup>18</sup> argues “their common denominator is the discovery, generation, use, management, or distribution of knowledge and information, often including intellectual property.” That very description characterizes what researchers do every day in their work, and clarifies the distinctive role of a research university. Having those researchers as teachers uniquely shapes the development of students at a research university.

### Expanding opportunities for doctoral research and research in graduate education

Graduate students are essential to expansion of the R&D enterprise across the System, and, thus, the improvement of the Maine economy. They extend the reach of researchers, playing key roles in all aspects of the research process — from problem formulation through data collection to specialized knowledge of use of tools and instruments, to

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analysis and interpretation, to engagement with the community, to career opportunities through spin-offs. They are interested in becoming experts in data science, instrument operation, community-engaged research to solve real problems in Maine, and interpretation and communication of research. An important factor in national rankings of universities (i.e., Carnegie Classification) is the number of doctoral degrees conferred by an institution. In addition to increasing research expenditures System-wide, we will increase the number of doctoral students to support the robust R&D enterprise. As part of the doctoral experience, our students are guided by world-class faculty, they mentor master's and undergraduate students, they provide expert undergraduate instruction, and they aim for careers in academia and beyond, bolstering the scientific workforce in Maine. These graduate students often seek employment within the System and, thus, help expand expertise. Projections about job openings in Maine indicate that over the next 10 years, there will be need for people with graduate degrees in education administration, statistics, mental health/substance abuse, advanced nursing, and speech pathology. Universities in Maine can gear up to

ensure that programs are available to fill that state need.

Figure 8 below displays trends in enrollment by graduate degree type at UMaine. We would need to see an increase in enrollment in research master's and doctoral programs to help realize both the increased R&D expenditures for the state and the enhanced workforce.

Figure 9 on the following page compares UMaine to New England peers in doctoral production. Our trend line is declining and lags a key peer, UNH. Doctoral students are essential not only for the new ideas and diversity that they bring to research and scholarship, but also for the role they play in expanding the capacity of faculty researchers. They enable engagement with more undergraduate students, along with increased time for faculty partnerships across the System and with the private sector, and capacity to respond to funding opportunities. Thus, doctoral students are an important part of a healthy state R&D ecosystem and benefit Maine.

National trends in STEM graduate education indicate the need for more interdisciplinary programs that provide experiences in convergent research, that prepare students for data-intensive science, and that enable students to consider

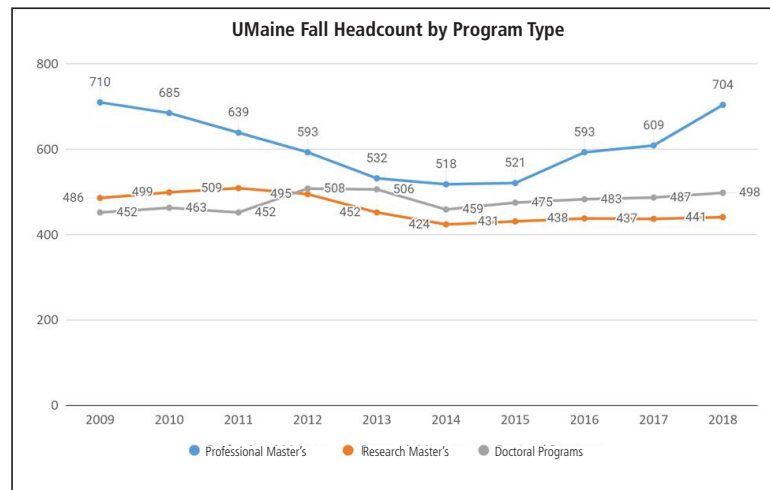


Figure 8. UMaine Fall Headcount by Graduate Degree Type

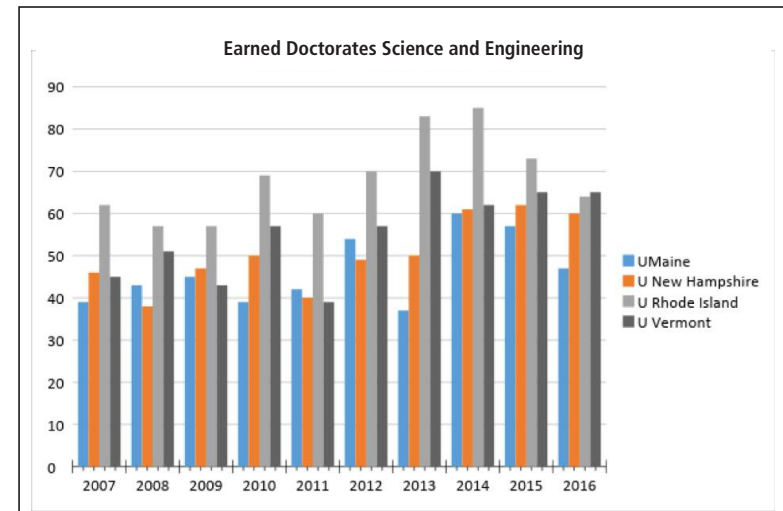


Figure 9. Earned Doctorates in Science and Engineering, UMaine and other New England Institutions

careers outside of academia. UMaine recently convened a Graduate Education Summit of campus leaders to plan for such future directions. Given trends in science and research, approaches such as hiring cluster groups of faculties around interdisciplinary themes, as UMaine is already doing, and enabling more "free-standing" Ph.D. programs so that such faculty can provide cutting-edge preparation, may be worthwhile and could be expanded.

### Establishing pathways to Maine careers for System students

Based on conversations in the development of this plan, we aspire to guarantee that every student in the University of Maine System has opportunities to engage significantly in research, innovation, and/or creation of knowledge experiences beginning in fall 2020.

UMaine will initiate a pilot program and provide support for faculty to work toward grand challenge or theme-based courses, modules, or combinations that enable the introduction of "core" standards and foundational

disciplinary knowledge within a problem or theme-based structure. This type of education, often called problem-based learning or project-based learning, requires students to be active in the educational process, and promotes collaborative work. Several educational institutions have begun to adopt or promote this model of learning. In a recent report on educating Gen Z students, Selingo (2018)<sup>vi</sup> suggests that attending to students' top reasons for going to college, and their learning preferences, is critical for higher education. The most common reason these students decide to attend college is "to get a better job." Instruction should include a blend of "independent and group work and experiential opportunities."<sup>vi</sup> Experience with faculty who are directly engaged in research and scholarship can be arranged in that mode.

There is support across the System institutions for further development of workforce training and recruitment pathway programs, including student internships, co-ops, and fellowships statewide and with geographic relevance. This can occur through partnerships with Maine businesses and industries to address their workforce needs.





At the University of Maine, students in each college have the option to participate in internships, and most of them will do so in Maine-based organizations, such as state government, health care providers, private nonprofits, and private corporations. Other campuses also have extensive internship opportunities. Throughout the System, several academic programs require capstone projects that challenge students to produce original ideas, engage in research, and present their findings. Research activity also is incorporated into regular coursework, and there is a growing interest and emphasis on campuses to promote interdisciplinary research experiences for students. Students have many opportunities to develop and refine their research skills and professional capacities. On several campuses, undergraduates have the opportunity to engage in community-based research activity. There is great interest overall in expanding these options and making them possible for more students in the System.

### Community-engaged research connected to undergraduate learning

Community-engaged research involves direct collaboration with local partners beyond the university to take up questions that are of interest and concern to the community. Such R&D is conducted with and for state government, business and industry, nonprofits, and community leaders, alongside faculty, staff, and students. The retraining of workers, including offering certifications, micro-credentialing, and degree completion partnerships with Maine businesses

and industries, can be explored through such collaborations. In addition, there are examples where community-engaged research is incorporated into classroom-based research across the System. For instance, the University of Maine routinely involves students in classroom-based research in such areas as aquaponics, water quality, ecology, and analytical chemistry. Many programs at the Cutler Institute/Muskie School of Public Service involve students as graduate or research assistantships in research. An example is the Public Health Program, which over the last five years has supported 105 graduate or research assistantship opportunities that have benefited 46 graduate students. Based on accreditation documentation, approximately 67 percent of the University of Southern Maine's health-related research projects included graduate students, and approximately 33 percent were classified as community-based. Similarly, the Maine Education Policy Research Institute,<sup>iv</sup> jointly led by USM and UMaine, undertakes studies and data collection to support state government policy leaders in their decision-making. There is expertise and interest across the System in expanding these opportunities, which would lead to an increasingly prepared workforce and citizenry, ready to make a difference in Maine communities.

### Metric and key milestones for goal three: Prepare the knowledge-and-innovation workforce for Maine

#### Metric for Goal Three

Sixty percent of adults in Maine have postsecondary education credentials that enable their participation in the future R&D workplace by 2025.

#### Key Milestones for Goal Three

- Every student in System institutions has opportunities to engage significantly in research, innovation, and/or creation of knowledge experiences beginning in fall 2020.
- The number of funded doctoral students in the System to enhance the scientific workforce in Maine and beyond will increase by 20 percent by fall 2025.
- Workforce training and recruitment pathway programs, including student internships, co-ops, and fellowships, are in place statewide, involving all System institutions, and with geographic relevance, through partnerships with Maine businesses and industries to address their workforce needs, by fall 2022.

## Findings and Recommendations

The process of preparing this plan, which included review of relevant reports and documents, both about Maine and the national R&D endeavor; and input sessions and discussions with System faculty, staff, students, administrators, and stakeholders from the Legislature, the Governor's Office, and the business sector, has led to some key findings and associated recommendations.

### Finding One:

#### Investment by the state of Maine and the University of Maine System in R&D has been essential to reach our current R&D capacity.

The Maine Economic Improvement Fund was established by the Maine Legislature in 1998, and the Research Reinvestment Fund was established by the System Board of Trustees in 2015. Without these resources, it is quite possible that R&D at the University of Southern Maine and other System campuses would have been minimal, and the capacity at the University of Maine to seek and obtain external funding would have been severely impeded. These state funds have leveraged significant external funding, and enabled hundreds of students to participate in research and to be paid for that participation. To sustain and grow university-based R&D infrastructure in Maine in the next 10 years that is properly scaled to achieve the goals will require increased investment from state and System sources. It also will require re-alignment over time within campus budgets. Clear metrics and accountability expectations will be necessary to track the outputs, outcomes, and impacts of these changes. Launching grand challenge initiatives will allow for focused investment in areas poised to grow and yield results in both the near and long term. The initiation of grand challenge initiatives will allow for focused investment in strong initiatives poised to grow and yield results in both the near and long term. Such investment stands to raise national ranking and increase competitiveness with similar institutions in other states for federal funds, leading faculty, and excellent students to come to, and remain in, Maine. But, most important, these investments will yield benefits for

the students and people of the state of Maine by enabling preparation of a knowledge-and-innovation workforce to fill key positions and attract businesses to a growing state economy.

#### Recommendations:

First, we recommend that the UMS Research Reinvestment Fund be renewed for five years, at a level of \$4 million per year, beginning in FY20. Additional new selection priorities should be considered, such as partnerships with private-sector entities or local communities to solve practical problems, or collaborations among researchers on different System campuses. These investments should promote strong networks of researchers, allow adequate time for faculty to conduct research, and expand opportunities for paid student research experiences. Outcomes should include measurable return on investment, effectiveness in leveraging external funding, and quality and impact of student engagement in research.

Second, we recommend regular increases in MEIF investment to reach a steady level of \$40 million annually by the end of FY24. This fund supports the on-campus capacity, including researchers, students, and facilities, that allows success in the intense national competition for federal research funding from the National Science Foundation, the National Institutes of Health, and other agencies. Additional MEIF resources would sustain and enhance infrastructure, and expand research capacity and expenditures in the highest-priority R&D areas for Maine's future well-being and economic success. Improving Maine's standing in national rankings of higher education expenditures in R&D will help attract R&D-intensive industry to the state. But the most important outcome of this investment will be expanded opportunity for Maine students to be educated in R&D-rich environments so they can become Maine leaders and innovators. System campuses will be asked to consistently track and report the number of students involved in R&D. In preparation for this request, the System should undertake an analysis of ROI and impact on the Maine economy of MEIF over its 20 years of existence by January 2020.

Third, the System institutions will collaboratively develop a plan for integrating R&D expenses in the E&G budget, parallel to the way that instructional costs are embedded.

## Research and Development PLAN 2019

The System's appropriation allocation model already encourages campuses to look closely at R&D spending in comparison to established peer institutions. The System's new appropriation allocation model already encourages campuses to look closely at R&D spending in comparison to established peer institutions. In addition, universities will consider realigning resources within their E&G budgets to provide additional support, as appropriate, for their R&D goals. We strongly urge the universities to reinvest more substantially F&A cost recovery back into the research enterprise.

This commitment will contribute to attracting students in Maine and to Maine by expanding the breadth of learning opportunities, including such options as paid internships with Maine companies interested in R&D expertise. Students with exposure to undergraduate research are likely to continue into our graduate offerings, establishing a pipeline, and improving the quality and capacity of the System graduate student body. These students will be prepared for the jobs of the 21st century and will be competitive in the national job market.

These changes would raise the profile of the University of Maine and other System campuses in ability to recruit students who are interested in undergraduate research, to attract and retain first-rate research faculty and graduate students, to compete for external federal funds, and to partner with the private sector to engage in R&D. All of these potential outcomes should be considered in designing accountability measures.

## Finding Two:

**Each System campus has its own unique, engaged R&D core of expertise that should be further strengthened.**

Research now and in the future will have a major role in "Making Maine the most desirable state in which to learn, work, and live by 2030." Across the System, we have a rich and diverse set of research interests and capabilities, and great expertise among the faculty to continue ongoing R&D, and to undertake new lines of work in connection with their students.

Each institution has distinct identifiable strengths and emerging goals for its role in R&D, and at each university in the System, the centrality and scope of the R&D enterprise

differs. For the University of Maine, the state's comprehensive land and sea grant public research university, basic and applied research, development, and commercialization are core to the mission, and expenditures from externally sponsored research approach \$100 million annually. At the University of Southern Maine, the R&D strength spans many areas, and much of the work is applied. Goals for applied learning and workforce development are important there. On the other System campuses are excellent examples of research and scholarship fully integrated into instruction and service, though with limited externally funded research.

### Recommendations:

First, each of the System campuses should develop a five-year R&D implementation plan for increasing research expenditures aligned with the goals of this plan and appropriate to each campus. Coordination and collaboration across campuses in R&D can then be considered. Existing and emerging signature R&D strengths at the University of Maine and other campuses will provide a foundation for this effort. By connecting to those established and emerging areas of strength, all campuses can design research agendas that are tailored to specific needs of their communities and geographic regions, that suit the interests and expertise of their faculty, and that will engage their students. Coordinated and public campus plans will be useful to potential new businesses and partners.

Second, the System universities, working together with Associated Faculties of the Universities of Maine and Human Resources units, should design and implement creative approaches to joint faculty appointments, including membership in the University of Maine Graduate Faculty. Such appointments will help to reduce barriers to conducting research and allow direct engagement with doctoral students. R&D faculty and student exchange and residency programs will be considered. The idea is to cultivate more cross-campus R&D collaboration that will generate tangible results for specific problems in Maine.

Third, the universities should collaborate on data governance in R&D to achieve consistency in reporting and to ensure appropriate credit for R&D expenditures. Methods to consistently include credit for a range of types of scholarly production should be explored when national surveys are not sufficient. By addressing these matters, we would support accountability and enable measurement of progress. In

addition, we should assess System-wide access to research databases of interest to researchers and scholars on multiple campuses and create cost-effective solutions.

## Finding Three:

**Across the University of Maine System, we have been failing to compete as well as we should for significant federal funding, and our facilities, infrastructure, and administrative support for R&D are inadequate in several fields important to Maine's future.**

The System as a whole is underperforming in higher education R&D expenditures. Between 2007 and 2016, Maine's total R&D expenditure declined nearly 40 percent — the largest decline of any state over that period. There are dozens of federal competitive grant programs available across the major science agencies<sup>ii</sup> annually in R&D areas of relevance to the state of Maine for which few, or, in some cases, no applications are made from System universities. This unacceptable situation results from a combination of lack of faculty with expertise or interest in key areas; insufficient administrative capacity to support proposal planning and submission; inadequate faculty time to prepare proposals because of competing teaching and service loads; and lack of graduate students, postdoctoral associates and technicians. In addition, there is a critical need for improved facilities; acquisition of modern and innovative instruments, and research resources; and procedures for sharing equipment and instruments. Sometimes, faculty cannot pursue research funding opportunities because the needed equipment and facilities do not exist in the System, or the costs of compliance and

purchasing licenses would be too great for faculty to cover from their own research budgets. Other similar universities have this research infrastructure in place, which puts our

faculty at a disadvantage when competing for federal grants. And there are opportunities to engage undergraduate students in research that are not being realized because of the lack of needed equipment and personnel. Improving modernized equipment has the added benefit of training our students for the jobs of the future that would use this instrumentation. All campuses report a large need for more administrative support in R&D.

*Despite all this, we believe that System faculty and staff are resourceful and deeply committed to their students, their research, and to Maine, and that we can remedy much of this situation with relatively modest resources, and increased coordination and communication.*

### Recommendations:

First, assuming availability of additional resources from combined sources, the universities will review and address needs for coordinated hiring of faculty in key areas of

importance to the state as determined, for instance, by System Board of Trustees goals, or recommended in the reports of the Maine Economic Growth Council or the economic growth plan currently under development through the Office of the Governor. Similar coordination or information-sharing should be applied to hiring of postdoctoral associates, technicians, and graduate students.

Second, a System-wide inventory of R&D instruments and facilities should be assembled and made available to all new faculty. The Coordinated Operating Research Entities (CORE) pioneered at the University of Maine provides a model for the System to emulate. Campus master plans should address needs for expanded and renovated R&D facilities.

**To sustain and grow university-based R&D infrastructure in Maine in the next 10 years that is properly scaled to achieve the goals will require increased investment from state and System sources.**

## Research and Development PLAN 2019

Third, the comprehensive research administration and development capacity currently in place at the University of Maine should be made available to support faculty research needs across the System. Inter-campus research administration collaborations between the University of Maine and other System campuses have been established (e.g., with the University of Maine at Machias and the University of Maine at Fort Kent). Research administration services also exist at the University of Southern Maine. Both the University of Maine and University of Southern Maine house expertise for research compliance, which could become shared resources with other System campuses.

## Finding Four:

**Across the System, undergraduate students are engaging in authentic research experiences and community-engaged research initiatives that are benefitting the region and the state.**

The opportunity to participate in research, development, and commercialization activities is highly attractive to undergraduate and graduate students, and many faculty across the System are effectively integrating research with instruction, including community-engaged research on problems of specific local interest. In the various listening sessions conducted during the development of this plan, faculty shared many examples of such student experiences. However, this student involvement is not as widespread or systematic as would be necessary to attract many more students to System institutions, and help retain them.

### Recommendations:

First, the System must provide leadership in incentivizing and enabling every undergraduate student in the University of Maine System to have a meaningful/authentic experience in research, scholarship, development, creative production, policy analysis, translation, or commercialization. System Program Innovation Funds should be considered as a resource.

Second, Course-based Undergraduate Research Experiences and other similar evidence-based courses, should be piloted and evaluated across the System according to campus capacity and interest, supported with campus resources. Impact on recruitment, enrollment, and retention

will be assessed, as well as the ability of students to obtain paid summer internships and employment after graduation, and whether students remain in Maine.

## Finding Five:

**The private and nonprofit sectors and the Maine state government are eager for expanded R&D interactions with higher education.**

Private-sector entities already partner in R&D relationships with several System universities, with a large number at the University of Maine. External companies considering moving to Maine also have expressed great interest in partnering with the University of Maine System to extend their R&D capabilities. However, for those interested entities, sometimes locating the best System research experts and gaining access to R&D capabilities is challenging. If System institutions were more easily able to partner with private-sector industries and businesses, we could tap a great source of economic stimulus in the state and opportunity for student interaction.

In the context of a dispersed and locally driven ecosystem in Maine for economic development, University of Maine System faculty and staff are deeply engaged in efforts to support commercialization, business development, incubation, and private-sector needs in R&D. The System has ample capacity to grow research partnerships with the private sector as well as commercialization outputs of university research (e.g., spin-offs, revenue, and intellectual property.) As with research expenditures, the System has ample room to grow industrial contract income, licensing revenue, invention disclosure, and patent production, as well as the number and types of startup companies spun off from university research. Those efforts could be expanded with potential impact statewide. And, in areas of policy and business that are key to the state, including ecosystem health, health care, education, aquaculture, marine resources, and biomedical and biotechnology applications, the System institutions already are positioned, because of the breadth of their research expertise, to more systematically provide background information and analyses to the state and to the members of our federal delegation.

### Recommendations:

The universities should continue to work closely with the private and government sectors to establish productive collaborations. Approaches to consider should include the creation of a Maine R&D Fellows program designed to connect System faculty, state government, Maine's federal delegation, and potential private/nonprofit partners to work collaboratively.

Second, the University of Maine should undertake a high-level review of existing doctoral programs in the STEM fields. The review should consider how program emphases align with current and projected state economic and R&D needs: whether basic, discovery research is sufficiently supported, and whether new directions in science and technology, including convergence, machine learning, and shared datasets, are being incorporated. Program consolidations, examination of how new programs are developed, and other

realignments should be undertaken to lead to increased production of doctoral degrees — an important part of building R&D capacity.

Third, research commercialization outputs as measured by revenue, intellectual property production, and university spin-off companies should grow significantly during the plan's implementation phase. Revenue targets should be set to grow by a factor of 10 and IP and spin-off outputs should at least double by 2025. Additionally, System institutions will engage in more robust communication of System R&D accomplishments statewide and nationally. As the Governor's economic development plan is completed, System universities should seek the best ways of providing capacity to that plan.

Finally, we call for strategic interactions with the Governor and the Maine Legislature in identifying and responding to changing priorities needing R&D inputs.

## Conclusion

The University of Maine System is committed to the improvement of quality of life and economic success of the state of Maine. Expansion of research and development across the institutions of the System will have a direct impact on that quality of life and economic success. The success of the research and development enterprise across the University of Maine System depends, ultimately, on the creativity, innovation, and productivity of the individuals and groups engaged in R&D. Their successes are essential in helping Maine's learners have access to the best research-based education possible; obtaining external

funding for research that will impact Maine and the world; sustaining the quality of research facilities, instruments, and technical staff; and fully integrating research and instruction. We must make shifts in policies, practices, and resource allocations in the System, and partner strategically with the Maine Legislature, the Office of the Governor, education systems in Maine, and the private sector to enhance the abilities of our faculty, students, and staff to be the regional, state, national, and international leaders in research that they are qualified to be, to benefit the learners and all people in Maine.



## Appendix A

### Process for Developing the UMS R&D Plan

Work commenced on the UMS R&D Plan shortly after the UMS Board of Trustees published its Declaration of Strategic Priorities document in December 2018. A steering committee (see next page for roster) was formed to serve in an advisory capacity, UMS presidents were provided regular updates, and engagement fora were set up for each UMS campus via Zoom. Draft goals and milestones were communicated as part of the outreach meetings, and participants had the opportunity to comment directly, as well as submit written comments via an online survey tool and through email. The majority of outreach sessions occurred in—spring 2019. Over 400 people were reached in one of the 19 sessions held. Such outreach and listening sessions will continue as part of the implementation process.

#### Outreach Events

UMaine Faculty Forum, Bumps Room, Memorial Union	11/30/2018
UMS Faculty Fellows AY18-19 Cohort, Wells Conference Center	1/25/2019
UMaine Early Career Faculty, Coe Room, Memorial Union	1/25/2019
UMS Board of Trustees and UMaine Board of Visitors, Wells Conference Center	1/27/2019
UMaine Deans Council, President's Conference Room, Alumni Hall	2/6/2019
UMaine Council of Associate Deans, 112 Alumni Hall	2/7/2019
University Research Council, 57 Stodder Hall	2/7/2019
UMaine Board of Visitors, Portland, Maine	2/8/2019
Cooperative Extension Leadership Team Zoom Meeting	2/20/2019
UMaine and UMM Town Hall, Wells Conference Center and via Zoom	2/25/2019
UMaine Graduate Board, 57 Stodder Hall	2/28/2019
University of Maine at Presque Isle Zoom meeting	3/4/2019
University of Maine at Fort Kent Zoom meeting	3/4/2019
University of Maine at Farmington Zoom meeting	3/7/2019
UMaine Graduate Education Summit, Buchanan Alumni House	3/8/2019
University of Southern Maine Zoom meeting	3/8/2019
University of Maine at Machias Zoom meeting	3/8/2019
University of Maine at Augusta Zoom meeting	3/15/2019
Bioscience Association of Maine (BioME), University of Maine	3/20/2019

#### Written input

University of Maine at Augusta, Office of the VPAA and Provost  
 University of Southern Maine, Office of the President  
 UMaine Academic Deans  
 UMaine Cooperative Extension  
 UMaine School of Earth and Climate Sciences, and Climate Change Institute  
 University of Maine Board of Visitors  
 UMaine Faculty Senate Research and Scholarship Committee  
 University of Maine College of Education and Human Development  
 University of Southern Maine Department of Environmental Science and Policy  
 University of Maine at Farmington Division of Early Childhood and Elementary Education  
 University of Southern Maine Center for Education Policy, Applied Research, and Evaluation  
 University of Maine Coordinated Operating Research Entities (CORE)

#### Consultations

2/25/2019	UMS President's Council Meeting
2/28/2019	Consultation with Vice Chancellor for Academic Affairs Robert Neely
3/6/2019	Meetings with Maine's Congressional Delegation
Various dates:	Meetings with members of the Governor's staff, Commissioners, and members of the Maine Legislature

### Steering Committee Meetings

1/24/2019	Kickoff
2/7/2019	Task teams formed
2/22/2019	Task team report out and work session on goals
3/7/2019	Discussion of what added investment does for the state

### Steering Committee Members

**Pankaj Agrawal**, Associate Professor of Finance, UMaine  
**Brian Beal**, Professor of Marine Biology, UMM  
**Lucille Benedict**, Associate Professor of Chemistry, Director of Quality Control Collaboratory, USM  
**Habib Dagher**, Executive Director, Advanced Structures and Composites Center, UMaine  
**Sandra De Urioste-Stone**, Assistant Professor of Nature-based Tourism, UMaine  
**Caitlin Howell**, Assistant Professor of Chemical and Biomedical Engineering, UMaine  
**Brenda Joly**, Associate Professor, Muskie School of Public Service, USM  
**Benjamin King**, Assistant Professor of Bioinformatics, UMaine  
**Paul Mayewski**, Director, Climate Change Institute, UMaine  
**Penny Rheingans**, Director, School of Computing and Information Science, UMaine  
**Kris Sahonchik**, Director, USM Research and Cutler Institute  
**Kristy Townsend**, Assistant Professor of Neurobiology, UMaine  
**Karen Wilson**, Associate Research Professor, Department of Environmental Science and Policy, USM

### Other Participants in Steering Committee Meetings

**Jason Charland**, Director of Research Development and R&D Plan Project Coordinator, UMaine  
**Jeff Hecker**, Executive Vice President for Academic Affairs and Provost, UMaine  
**Ross Hickey**, Assistant Provost for Research Integrity, USM  
**George Jacobson**, Professor Emeritus, UMaine  
**Jason Johnston**, Dean, College of Arts and Sciences, Associate Professor of Wildlife Ecology, UMPI  
**Renee Kelly**, Assistant Vice President for Innovation and Economic Development, UMaine  
**David Townsend**, Professor of Oceanography and Faculty Senate President, UMaine  
**Kody Varahramyan**, Vice President for Research and Dean of the Graduate School, UMaine  
**Jake Ward**, Vice President for Innovation and Economic Development, UMaine  
**Samantha Warren**, Director of Government and Community Relations, UMS

## Appendix B

### Key Stakeholder Interview Summary

Members of the UMS R&D plan steering committee interviewed several key stakeholders<sup>SM</sup> with unique perspectives in the development of R&D initiatives in Maine, as well as other parts of the country. Discussion questions with interviewees covered goals and deliverables of statewide R&D initiatives; partnership models that have proven effective in rural states; thoughts on grand challenge initiatives; and what it takes for stakeholders and research universities to work together to advance prosperity. A summary of key idea responses is found in the table below, with the most frequent responses highlighted in bold.

Question	Category	Key Ideas
1. What advice can you provide us related to establishing goals and deliverables for our proposed R&D plan?	Strategic Planning	<ul style="list-style-type: none"> <li>• <b>Jointly determine needs with stakeholders (including needs of potential students)</b></li> <li>• Cross-sector collaborations</li> <li>• Immediate deliverables; quick turnaround and follow up with stakeholders</li> <li>• Long-term goals</li> </ul>
	Focus	<ul style="list-style-type: none"> <li>• <b>Applied research and basic research</b></li> </ul>
2. Are you aware of any R&D partnership models/initiatives between universities and the private sector that have worked particularly well in rural states?	Characteristics	<ul style="list-style-type: none"> <li>• <b>Create a network of collaborators</b></li> <li>• <b>Basic and applied research</b></li> <li>• <b>Talk to stakeholders to identify needs</b></li> <li>• Meet unmet needs</li> <li>• Support commercialization</li> </ul>
	Examples in Maine	<ul style="list-style-type: none"> <li>• <b>Cooperative Forestry Research Unit (UMaine)</b></li> <li>• ASCC/FBRI (UMaine)</li> <li>• FOR/Maine</li> </ul>
3. Are you aware of any grand challenge initiatives that research universities are tackling in your state?	Rural Economic Development	<ul style="list-style-type: none"> <li>• <b>Winning strategy for sustainable economic development</b></li> <li>• Focus on next generation of forest products</li> <li>• Support regional planning and economic development strategies for rural areas</li> </ul>
	Community viability	<ul style="list-style-type: none"> <li>• <b>Engage in community development</b></li> <li>• <b>Invest in broadband</b></li> </ul>
	Quality of place	<ul style="list-style-type: none"> <li>• <b>Develop clean energy</b></li> <li>• <b>Work on multisector, multiagency, multi-disciplinary efforts to address sustainability</b></li> </ul>
4. What does it take for states and research institutions to work together to advance prosperity?	Investment of time and resources	<ul style="list-style-type: none"> <li>• <b>Shared commitment (time, resources) and intention (willingness)</b></li> <li>• Investment (from state, industry, universities)</li> </ul>
	Engagement, shared decision making, and empowered human capital	<ul style="list-style-type: none"> <li>• <b>Shared planning, vision and clear understanding of how different pieces should be integrated</b></li> <li>• Balance applied with basic research to respond to needs of Maine stakeholders</li> <li>• Build functional communities — engage multiple stakeholders, collaborate in grants</li> <li>• Leadership</li> </ul>

## Appendix C

### Acknowledgments

Office of the President



5703 Alumni Hall  
Orono, Maine 04469-5703  
Tel: 207.581.1512  
Fax: 207.581.1517  
umaine.edu

Development and creation of this plan was a team effort, and I will start by thanking all of the faculty, staff, students, and administrators who attended the outreach events and provided creative ideas, shared critiques, offered solutions and strategies for implementation, and shared observations of strengths, weaknesses, and opportunities related to R&D within the System. The R&D plan steering committee and administrators within the System served as insightful advisors and constructive critics, and also provided compelling examples of faculty, staff, students, and external collaborators working together to advance R&D in Maine and beyond. Special thanks go to members of the UMaine's President's Office staff and Cabinet; the UMaine Board of Visitors; the UMM Board of Visitors; Presidents Brown, Cummings, Rice, Short, and Wyke, Vice President and Head of Campus Egan; and the System Board of Trustees. Consultation with Chancellor Page and Vice Chancellor Neely was invaluable in the development of this plan's recommendations, and I am grateful for their support through this process. Additional thanks to UMaine Vice President for Research and Dean of the Graduate School Kody Varahramyan for providing staffing support to coordinate this project through the able assistance of Jason Charland, UMaine Director of Research Development, along with his colleagues Saul Allen and Allyson Hammond in the Office of Research Development. Thanks also to UMaine's Director of Public Relations, Margaret Nagle, and Director of Creative Services, Val Ireland, for their help with editing this document. And, thanks to Sharon Buchanan, UMaine Finance Communications Specialist, for her assistance with preparing presentation materials.

Through the initiation of this process, I am invigorated by the passion and enthusiasm that exists within the System that will allow us, collectively, as One University, to advance R&D in the state of Maine and reach our three unifying goals:

- Make Maine the best state in the nation in which to live, work, and learn by 2030.
- Establish an innovation-driven Maine economy for the 21st century.
- Prepare the knowledge-and-innovation workforce for Maine.

I look forward to the next steps of implementation that will include additional engagement with internal and external stakeholders, and taking action swiftly and boldly to produce results that will have lasting and resounding impact on the System's R&D enterprise, our students, our communities, and the economic health and prosperity of the state of Maine.

Sincerely,

Joan Ferrini-Mundy  
President, University of Maine and University of Maine at Machias

MAINE'S LAND GRANT AND SEA GRANT UNIVERSITY



## Endnotes

- <sup>i</sup> <https://www.nsf.gov/statistics/2019/nsf19303/nsf19303.pdf>
- <sup>ii</sup> National Science Foundation, National Oceanic and Atmospheric Administration, NASA, U.S. Department of Agriculture, National Institute of Standards and Technology, National Institutes of Health, Department of Defense, and U.S. Department of Education.
- <sup>iii</sup> <https://www.nsf.gov/statistics/2019/nsf19303/nsf19303.pdf>
- <sup>iv</sup> <https://www.nsf.gov/statistics/states/interactive/show.cfm?stateID=53,20&year=0>
- <sup>v</sup> <https://thinkmissionexcellence.maine.edu/wp-content/uploads/sites/1/2019/01/BOTDeclaration.pdf>, p.3
- <sup>vi</sup> <https://thinkmissionexcellence.maine.edu/wp-content/uploads/sites/1/2019/01/BOTDeclaration.pdf>, p.3
- <sup>vii</sup> This is the original language of the Morrill Act, <https://www.ourdocuments.gov/doc.php?flash=false&doc=33#>
- <sup>viii</sup> The Association of Public & Land Grant Universities details this legislative and educational history on its website, retrieved from <http://www.aplu.org/about-us/history-of-aplu/what-is-a-land-grant-university/>. As the land grant institution in the state of Maine, UMaine is a member of APLU.
- <sup>ix</sup> <https://www.nap.edu/catalog/4980/colleges-of-agriculture-at-the-land-grant-universities-a-profile>, p.8
- <sup>x</sup> Hauck, A. A., (1954) Maine's University and the Land-Grant Tradition. General University of Maine Publications. 174. retrieved from [https://digitalcommons.library.umaine.edu/cgi/viewcontent.cgi?article=1175&context=univ\\_publications](https://digitalcommons.library.umaine.edu/cgi/viewcontent.cgi?article=1175&context=univ_publications)
- <sup>xi</sup> Hauck, A. A., (1954) Maine's University and the Land-Grant Tradition . General University of Maine Publications. 174. retrieved from [https://digitalcommons.library.umaine.edu/cgi/viewcontent.cgi?article=1175&context=univ\\_publications](https://digitalcommons.library.umaine.edu/cgi/viewcontent.cgi?article=1175&context=univ_publications), p. 20
- <sup>xii</sup> The recent FOR/MAINE report retrieved from [https://formaine.org/wpcontent/uploads/2018/09/FORMaine\\_Report\\_DL.pdf](https://formaine.org/wpcontent/uploads/2018/09/FORMaine_Report_DL.pdf)
- <sup>xiii</sup> <https://umaine.edu/research/>
- <sup>xiv</sup> <https://machias.edu/about-umm/>
- <sup>xv</sup> USM mission statement approved by System BOT in 2010.
- <sup>xvi</sup> <https://usm.maine.edu/research/overview>
- <sup>xvii</sup> <https://www.uma.edu/academics/programs/architecture/history-principles/>
- <sup>xviii</sup> <https://www.umf.maine.edu/about/>
- <sup>xix</sup> <http://pages.umpi.edu/umpi-history/narrative.htm>; <https://www.umpi.edu/>
- <sup>xx</sup> <https://www.umfk.edu/about/history/>
- <sup>xxi</sup> For example, see Atkinson, R. & Blanpied, W. (2007)"Research Universities: Core of the U.S. Science and Technology System." Retrieved from <https://cshe.berkeley.edu/sites/default/files/publications/rops.rca.blanpied.resuniv.5.07.a.pdf>; see also Owen-Smith, J., (2018) Research Universities and the Public Good. Stanford: Stanford University Press.
- <sup>xxii</sup> Bush, V. (1945) "Science, The Endless Frontier" . Reprinted by National Science Foundation, 1990, retrieved from <https://www.nsf.gov/about/history/nsf50/vbush1945.jsp>
- <sup>xxiii</sup> Owen-Smith, J., (2018) Research Universities and the Public Good. Stanford: Stanford University Press.p. 11.
- <sup>xxiv</sup> [https://en.wikipedia.org/wiki/Research\\_university](https://en.wikipedia.org/wiki/Research_university); <https://blog.prepscholar.com/what-is-a-research-university>; and <https://www.hanoverresearch.com/media/Building-a-Culture-of-Research-Recommended-Practices.pdf>
- <sup>xxv</sup> NCSES, Higher Education Research and Development Survey, FY16. Retrieved from <https://www.nsf.gov/statistics/srvyherd/>. See <https://www.nsf.gov/statistics/randdef/#chp5>
- <sup>xxvi</sup> [https://mup.umass.edu/sites/default/files/mup\\_2017\\_americas\\_research\\_universities.pdf](https://mup.umass.edu/sites/default/files/mup_2017_americas_research_universities.pdf)
- <sup>xxvii</sup> <https://ncesdata.nsf.gov/herd/2017/>
- <sup>xxviii</sup> Stokes, D.E. (1997). Pasteur's quadrant: Basic science and technological innovation. Washington, D.C.: Brookings Institution Press.
- <sup>xxix</sup> Stokes, D.E. (1997). Pasteur's quadrant: Basic science and technological innovation. Washington, D.C.: Brookings Institution Press
- <sup>xxx</sup> Bush, V. (1945), "Science, The Endless Frontier" p 19.
- <sup>xxxi</sup> <https://www.nsf.gov/statistics/randdef/rd-definitions.pdf>
- <sup>xxxii</sup> <https://assets1b.milkeninstitute.org/assets/Publication/ResearchReport/PDF/State-Tech-2018-FINAL.pdf>
- <sup>xxxiii</sup> <https://assets1c.milkeninstitute.org/assets/Publication/ResearchReport/PDF/Concept2Commercialization-MR19-WEB.pdf>
- <sup>xxxiv</sup> <https://umaine.edu/provost/wp-content/uploads/sites/14/2017/11/Commercialization-Report-Aug2017.pdf>
- <sup>xxxv</sup> <https://www.maintechology.org/wp-content/uploads/MTI-MTAF2-ImpactReport.pdf>
- <sup>xxxvi</sup> <http://legislature.maine.gov/statutes/10/title10sec946.html>;  
<http://legislature.maine.gov/statutes/10/title10sec947.html>
- <sup>xxxvii</sup> FY18 MEIF Annual Report to the UMS BOT.
- <sup>xxxviii</sup> [https://www.nsf.gov/news/special\\_reports/i-corps/](https://www.nsf.gov/news/special_reports/i-corps/)
- <sup>xxxix</sup> <https://www.nsf.gov/statistics/2018/nsb20181/assets/nsb20181.pdf>, Chapter 5, p. 11.
- <sup>xl</sup> [https://www.nsf.gov/od/oia/programs/epscor/Eligibility\\_Tables/FY2018\\_Eligibility.pdf](https://www.nsf.gov/od/oia/programs/epscor/Eligibility_Tables/FY2018_Eligibility.pdf)
- <sup>xli</sup> UMS institutions currently in the INBRE Network: Honors College at the University of Maine; University of Maine; University of Maine at Farmington; University of Maine at Fort Kent; University of Maine at Machias; and University of Maine at Presque Isle.
- <sup>xlii</sup> Popowitz, M. and Dorgelo, C. (2018, February 13). Report on university-led grand challenges, retrieved from <https://escholarship.org/uc/item/46f121cr>
- <sup>xliii</sup> <https://thinkmissionexcellence.maine.edu/wp-content/uploads/sites/1/2019/01/BOTDeclaration.pdf>, p. 2.
- <sup>xliv</sup> (<https://thinkmissionexcellence.maine.edu/wp-content/uploads/sites/1/2019/01/BOTDeclaration.pdf>, p. 2.
- <sup>xlv</sup> Richert, E. (2001), "30 and 1000," Maine State Planning Office, Augusta, Maine, p. 5.
- <sup>xlvi</sup> [http://www.mdf.org/documents/MOG2018\\_OnePager\\_Final.pdf](http://www.mdf.org/documents/MOG2018_OnePager_Final.pdf)
- <sup>xlvii</sup> NSB S&E Indicators, 2018. Accessible at <https://www.nsf.gov/statistics/2018/nsb20181/assets/nsb20181.pdf>
- <sup>xlviii</sup> NSF, "Science and Engineering State Profiles," retrieved from <https://www.nsf.gov/statistics/states/interactive/show.cfm?stateID=53,20&year=0>
- <sup>xlix</sup> NSF, "Science and Engineering State Profiles," retrieved from <https://www.nsf.gov/statistics/states/interactive/show.cfm?stateID=53,20&year=0>
- <sup>l</sup> NSB S&E Indicators, 2018. <https://www.nsf.gov/statistics/2018/nsb20181/assets/nsb20181.pdf>, p 5.29.
- <sup>li</sup> NSB S&E Indicators, 2018. <https://www.nsf.gov/statistics/2018/nsb20181/assets/nsb20181.pdf>, p 5.29.
- <sup>lii</sup> <https://umaine.edu/research/wp-content/uploads/sites/281/2017/02/Strategic-Implementation-Form-for-Enhancement-of-Research-Scholarship-and-Creative-Activity.pdf>
- <sup>liii</sup> Richert, E. (2001) "30 and 1000," Maine State Planning Office, Augusta, Maine., as cited in Richert, E. (2014). R&D: Cornerstone of the knowledge economy. Maine Policy Review, 23(1), p. 48.

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**Endnotes continued**

- <sup>lv</sup> Richert, E. (2001) "30 and 1000," Maine State Planning Office, August, Maine., as cited in Richert, E. (2014). R&D: Cornerstone of the knowledge economy. Maine Policy Review, 23(1), p. 48.
- <sup>lv</sup> Richert, E. (2001) "30 and 1000," Maine State Planning Office, August, Maine., as cited in Richert, E. (2014). R&D: Cornerstone of the knowledge economy. Maine Policy Review, 23(1), p. 54.
- <sup>lvii</sup> Hyman, J. & Jacobs, L. (2010). "Ten Reasons to Go to a Research University." S. News and World Report. Retrieved from <https://www.usnews.com/education/blogs/professors-guide/2010/04/28/10-reasons-to-go-to-a-research-university>
- <sup>lviii</sup> Richert, E. (2014). R&D: Cornerstone of the knowledge economy. Maine Policy Review, 23(1), 48-56. Retrieved from <https://digitalcommons.library.umaine.edu>
- <sup>lviii</sup> Richert, E. (2014). R&D: Cornerstone of the knowledge economy. Maine Policy Review, 23(1), 48-56. Retrieved from <https://digitalcommons.library.umaine.edu>, p.49.
- <sup>lix</sup> <https://umaine.edu/strategic-visioning/wp-content/uploads/sites/487/2019/03/Grad-Ed-Summit-3.8.19-FINAL.pdf>
- <sup>lx</sup> Knowlton, D. S. (2003). "Preparing students for educated living: Virtues of problem-based learning across the higher education curriculum," New Directions for Teaching and Learning, 2003(95), 5-12. doi: 10.1002/tl.107
- <sup>lxi</sup> Project Based Learning in Higher Education. (n.d.). Retrieved from <https://www.shsu.edu/centers/project-basedlearning/higher-education.html>
- <sup>lxii</sup> Selingo, J.J. (2018). The New Generation of Students: How Colleges Can Recruit, Teach, and Serve Gen Z, Washington, D.C.: Chronicle of Higher Education.
- <sup>lxiii</sup> Selingo, J.J. (2018). The New Generation of Students: How Colleges Can Recruit, Teach, and Serve Gen Z, Washington, D.C.: Chronicle of Higher Education, p. 21.
- <sup>lxiv</sup> Selingo, J.J. (2018). The New Generation of Students: How Colleges Can Recruit, Teach, and Serve Gen Z, Washington, D.C.: Chronicle of Higher Education, p. 26
- <sup>lxv</sup> <http://mepri.maine.edu/>
- <sup>lxvi</sup> Key stakeholders interviewed included: Dr. Alan Blatecky, Visiting Fellow, RTI International; Jared Arnet, Executive Director, Shaping our Appalachian Region (SOAR); Stephen Schley, President, Pingree Associates; Dr. Jim Coffman, Director, Maine IDeA Network of Biomedical Research Excellence (INBRE), Mount Desert Island Biological Laboratory (MDIBL); Mike Wilson, Senior Program Director, Northern Forest Center; Dr. David Vail, Adams Catlin Emeritus Professor of Economics, Bowdoin College; and Ms. Martha Bentley, Director of Innovation Infrastructure, Maine Technology Institute.



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## **2018-2019 UMS Program Innovation Fund (PIF)**

The UMS 2018-2019 Program Innovation Fund process began on September 21, 2018 with a request for pre-proposals from interested faculty on each of the seven campuses. This year's criteria closely aligned with Board priorities: address workforce needs, increase adult attainment, and develop credentials of value, with enrollment growth, collaboration, feasibility, and expediency completing the list.

A total of twenty pre-proposals were submitted. Of these, fifteen were selected by the Chief Academic Officers Council (CAOC) to move forward to the full proposal stage and twelve were finally submitted. Eight of those proposals have been selected for full or partial funding:

- “Increasing Workforce Development Programmatic Capacity for Working Learners through CBE” – (UMPI lead campus)
- “Core Education Tailored to the Adult Online Student” – (UMF and UM)
- “Mental Health and Rehabilitation Cooperative Minor” – (UMM and UM)
- “Credentialing Maine Adults for Transition into Careers in Information Systems and Computing” – (UM lead campus, with UMM, UMPI, USM, UMF, and UMA)
- “A Pilot for Enhancing Nurses’ Competency at Graduation through Clinical Immersion” – (USM and UMA)
- “Aquaculture Workforce Development: Aquatic Systems, Health and Husbandry” – (UM and UMM)
- “Northern and Downeast Pilot to Expand Inclusive Early Childhood Education” – (UMM and UMPI)
- “Portable Dental Assisting Program” – (UMA and UMPI)

# FY20

## Proposed Unified Operating Budget, Capital Budget & Student Charges



May 19-20, 2019





## FY20 Budget Overview

- **Budget focus on Board of Trustees priority & secondary outcomes**
- **Enrollment Increase**  
Early College budgeted credit hour increase of 12%  
Academic Partnership credit hours estimated at +6,500
- **In-state, undergraduate tuition increase at CPI at most campuses – 2.5%**
- **Utilization of reserve funds**  
UMA & UMM are using campus reserves to balance: UMF requesting Budget Stabilization; Law School utilizing USM reserves & requesting Budget Stabilization Funds.
- **Governor's proposed Biennial Budget includes a 3% increase in FY20 appropriation plus additional funds for Early College and Adult Degree Completion programs.**





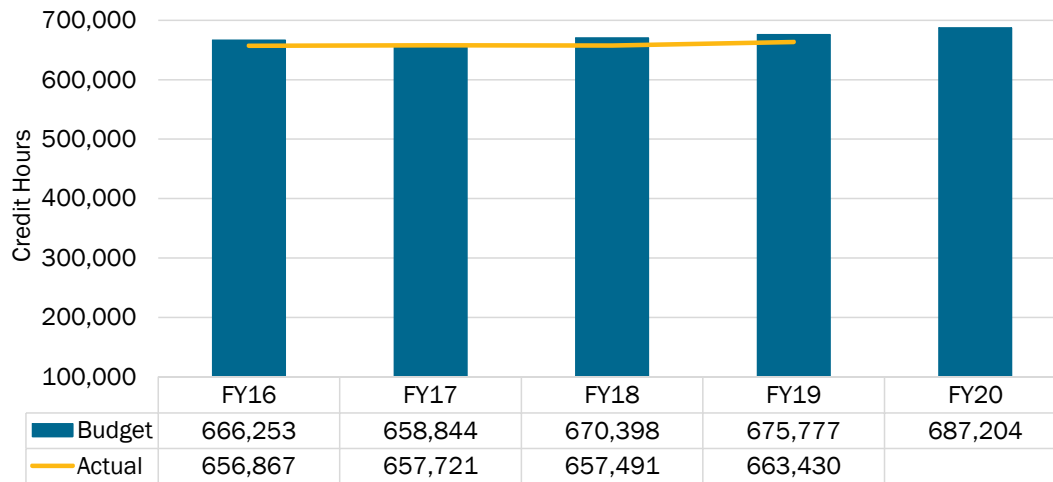
## FY20 Budget Overview

	E&G	Auxiliary	Total	Campus Reserves	Budget Stabilization	Total
UMaine	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
UMM	(494,277)	-	(494,277)	494,277	-	-
UMA	(1,203,064)	(209,672)	(1,412,736)	1,412,736	-	-
UMF	(500,000)	-	(500,000)	-	500,000	-
UMFK	300,887	(300,887)	-	-	-	-
UMPI	(182,679)	228,248	45,569	-	-	45,569
USM (Excl. Law)	-	60,399	60,399	-	-	60,399
Maine Law	(925,000)	-	(925,000)	425,000	500,000	-
Governance	-	-	-	-	-	-
Univ. Svs	-	-	-	-	-	-
<b>Total</b>	<b>\$(3,004,133)</b>	<b>\$ (221,912)</b>	<b>\$(3,226,045)</b>	<b>\$ 2,332,013</b>	<b>\$ 1,000,000</b>	<b>\$ 105,968</b>

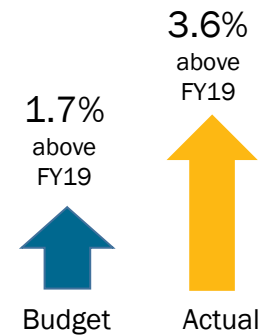


# UMS Enrollment

## UMS Total Credit Hour Enrollment (incl EC, CBE & AP)



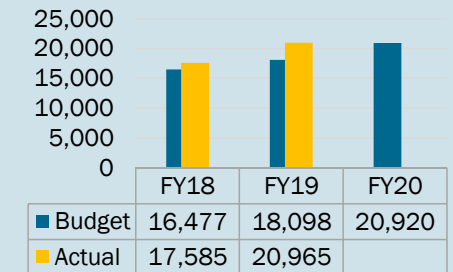
## FY20 Enrollment Budget



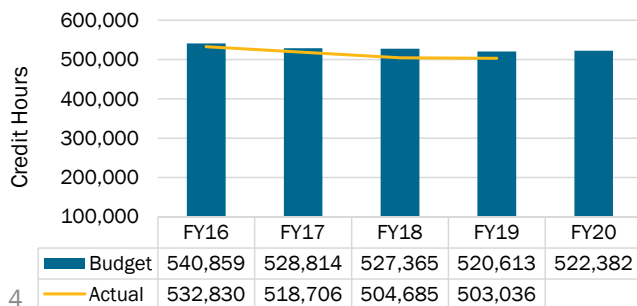
## Major factors impacting enrollment:

- FY20 credit hours are up 3.6% over FY19 actual credit hours
- FY20 out-of-state budgeted represent 24% of the total credit hours.

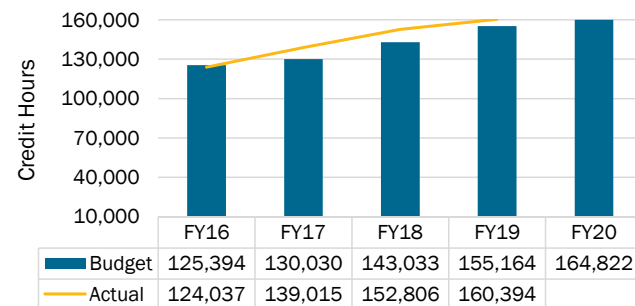
## Early College



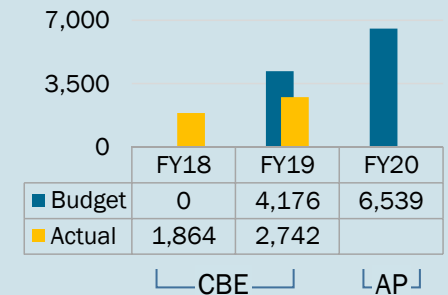
## In-State



## Out-of-State



## CBE/AP





## FY20 Recommended In-State Tuition Rates

Undergraduate	FY19 Rate/CH	FY20 Proposed Rate/CH	FY20 Proposed Increases	
			\$	%
UMaine	\$293	\$300	\$7	2.4%
UMA/UMFK/UMM/UMPI	\$233	\$239	\$6	2.6%
UMF	\$274	\$281	\$7	2.6%
USM	\$271	\$281	\$10	3.7%
Graduate	FY19 Rate/CH	FY20 Proposed Rate/CH	FY20 Proposed Increases	
			\$	%
UMaine	\$439	\$450	\$11	2.5%
UMF/USM	\$407	\$421	\$14	3.4%
Law School	\$743	\$773	\$30	4.0%

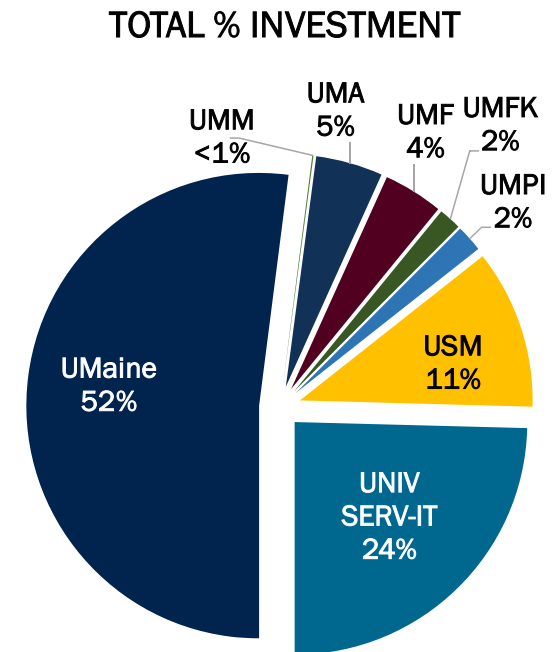
- In-State, undergraduate tuition increase based on CPI (2.5%).
- Additional increases at USM to equal UMF – final implementation step of the Unified Budget pricing structure.

- First Law School tuition increase since FY13



## Capital Investments from Operations

	Facilities	Equipment & Vehicles	Projects to be determined during FY20	Capital Reserve Deposit (to be utilized in FY21 or after)	TOTAL INVESTMENT
UMAINE	\$ 2,233,389	\$ 2,122,950	\$ 2,117,554	\$ 1,637,951	\$ 8,111,844
UMM	-	-	11,408	-	11,408
UMA	675,000	36,679	12,754	-	724,433
UMF	534,266	115,000	-	-	649,266
UMFK	225,000	21,408	-	-	246,408
UMPI	267,383	-	-	25,469	292,852
USM	1,558,500	164,906	-	-	1,723,406
UNIV SERV - IT	-	3,089,800	-	741,771	3,831,571
<b>TOTAL</b>	<b>\$ 5,493,538</b>	<b>\$ 5,550,743</b>	<b>\$ 2,141,716</b>	<b>\$ 2,405,191</b>	<b>\$ 15,591,188</b>

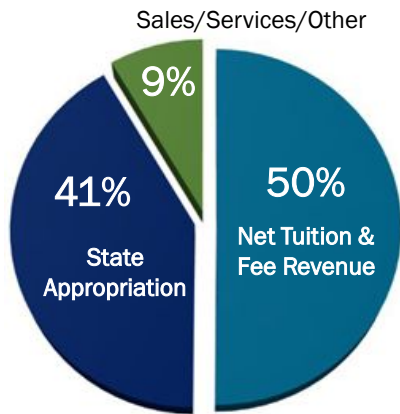




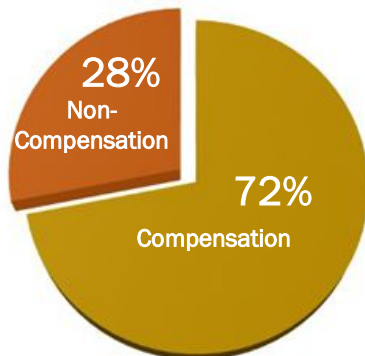


## FY20 Proposed Budget: E&G

### FY20 Revenue



### FY20 Expense



7

	FY19 Base	FY20 Proposed	\$ Change	% Change
<b>Revenue:</b>				
Tuition & Fee Revenue	\$ 314,176,615	\$ 331,118,927	\$ 16,942,312	5.4%
Tuition Waivers/Scholarships	(84,371,144)	(90,894,408)	(6,523,264)	7.7%
State Appropriation	188,920,534	198,159,700	9,239,166	4.9%
Sales/Services/Other	40,578,955	40,587,767	8,812	-%
<b>Total Revenue</b>	<b>459,304,960</b>	<b>478,971,986</b>	<b>19,667,026</b>	<b>4.3%</b>
<b>Expense:</b>				
Personnel Expense	342,272,043	354,232,518	11,960,475	3.5%
Fuel & Electricity	15,491,893	16,269,107	777,214	5.0%
Supplies & Services	30,974,837	32,035,919	1,061,082	3.4%
Travel	6,355,216	6,409,622	54,406	0.9%
Memberships, Contributions & Sponsorships	1,547,972	1,518,633	(29,339)	-1.9%
Maintenance & Alterations	11,669,339	12,071,251	401,912	3.4%
Interest Expense	1,712,822	1,554,864	(157,958)	-9.2%
Depreciation	30,787,221	32,347,555	1,560,334	5.1%
Other Expenses & Transfers	32,521,186	36,048,008	3,526,822	10.8%
<b>Total Operating Expenses &amp; Transfers</b>	<b>473,332,529</b>	<b>492,487,477</b>	<b>19,154,948</b>	<b>4.0%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (14,027,569)</b>	<b>\$ (13,515,491)</b>	<b>\$ 512,078</b>	<b>-3.7%</b>
<b>Modified Cash Flow:</b>				
Add back Depreciation	30,787,221	32,347,555	1,560,334	5.1%
Less Capital Expenditures	(9,711,654)	(9,403,803)	307,851	-3.2%
Less Capital Reserve Funding	(4,408,061)	(3,378,140)	1,029,921	-23.4%
Less Debt Service Principal	(3,954,187)	(4,052,229)	(98,042)	2.5%
<b>Net Change Before Other Adj &amp; Transfers</b>	<b>(1,314,250)</b>	<b>1,997,892</b>	<b>3,312,142</b>	
Transfer from/(to) Admin Savings Rsrv	(3,301,740)	(5,002,025)	(1,700,285)	
Transfer from/(to) Budget Stabilization	500,000	1,000,000	500,000	
<b>Net Change Subtotal</b>	<b>(4,115,990)</b>	<b>(2,004,133)</b>	<b>2,111,857</b>	
Other Strategic Transfers from/(to) Reserves	4,082,963	2,122,341	(1,960,622)	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ (33,027)</b>	<b>\$ 118,208</b>	<b>\$ 151,235</b>	

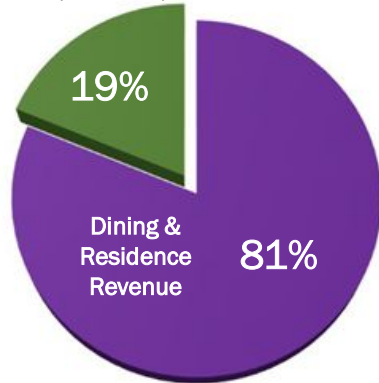




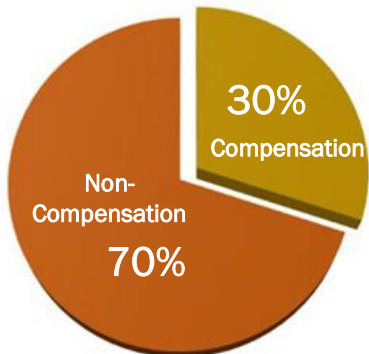
## FY20 Proposed Budget: Auxiliary

### FY20 Revenue

Sales/Services/Other



### FY20 Expense

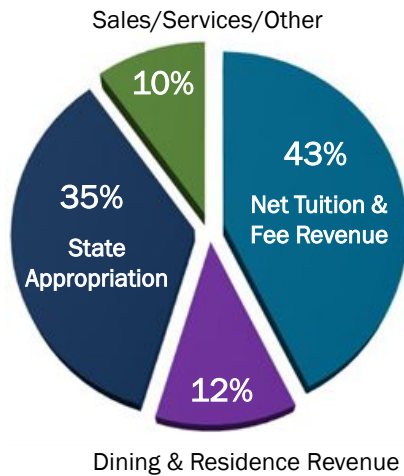


	FY19 Base	FY20 Proposed	\$ Change	% Change
<b>Revenue:</b>				
Tuition & Fee Revenue	\$ 1,227,714	\$ 1,227,714	\$ -	0.0%
Dining & Residence Revenue	65,474,989	68,153,741	2,678,752	4.1%
Tuition Waivers/Scholarships	(2,252,044)	(2,326,379)	(74,335)	3.3%
Sales/Services/Other	17,197,920	15,483,729	(1,714,191)	-10.0%
<b>Total Revenue</b>	<b>81,648,579</b>	<b>82,538,805</b>	<b>890,226</b>	<b>1.1%</b>
<b>Expense:</b>				
Personnel Expense	22,643,349	24,128,435	1,485,086	6.6%
Fuel & Electricity	6,042,885	6,097,572	54,687	0.9%
Supplies & Services	24,880,439	23,320,178	(1,560,261)	-6.3%
Travel	128,380	124,720	(3,660)	-2.9%
Memberships, Contributions & Sponsorships	20,772	22,597	1,825	8.8%
Maintenance & Alterations	4,417,770	5,034,695	616,925	14.0%
Interest Expense	3,697,167	3,453,982	(243,185)	-6.6%
Depreciation	6,255,906	6,096,604	(159,302)	-2.5%
Other Expenses & Transfers	10,653,524	11,973,865	1,320,341	12.4%
<b>Total Operating Expenses &amp; Transfers</b>	<b>78,740,192</b>	<b>80,252,648</b>	<b>1,512,456</b>	<b>1.9%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 2,908,387</b>	<b>\$ 2,286,157</b>	<b>\$ (622,230)</b>	<b>-21.4%</b>
<b>Modified</b>				
Add back Depreciation	6,255,906	6,096,604	(159,302)	-2.5%
<b>Cash Flow:</b>				
Less Capital Expenditures	(2,284,887)	(1,652,194)	632,693	-27.7%
Less Capital Reserve Funding	(1,387,413)	(1,157,051)	230,362	-16.6%
Less Debt Service Principal	(5,429,046)	(5,795,428)	(366,382)	6.7%
<b>Net Change Before Other Adj &amp; Transfers</b>	<b>62,947</b>	<b>(221,912)</b>	<b>(284,859)</b>	
Other Strategic Transfers from/(to) Reserves	86,929	209,672	122,743	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 149,876</b>	<b>\$ (12,240)</b>	<b>\$ (162,116)</b>	

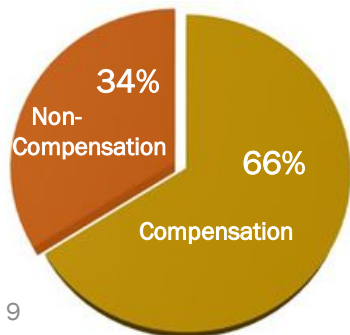


## FY20 Proposed Budget: E&G and Auxiliary

### FY20 Revenue



### FY20 Expense



	FY19 Base	FY20 Proposed	\$ Change	% Change
<b>Revenue:</b>				
Tuition & Fee Revenue	\$ 315,404,329	\$ 332,346,641	\$ 16,942,312	5.4%
Dining & Residence Revenue	65,474,989	68,153,741	2,678,752	4.1%
Tuition Waivers/Scholarships	(86,623,188)	(93,220,787)	(6,597,599)	7.6%
State Appropriation	188,920,534	198,159,700	9,239,166	4.9%
Sales/Services/Auxiliary	57,776,875	56,071,496	(1,705,379)	-3.0%
<b>Total Revenue</b>	<b>540,953,539</b>	<b>561,510,791</b>	<b>20,557,252</b>	<b>3.8%</b>
<b>Expense:</b>				
Personnel Expense	364,915,392	378,360,953	13,445,561	3.7%
Fuel & Electricity	21,534,778	22,366,679	831,901	3.9%
Supplies & Services	55,855,276	55,356,097	(499,179)	-0.9%
Travel	6,483,596	6,534,342	50,746	0.8%
Memberships, Contributions & Sponsorships	1,568,744	1,541,230	(27,514)	-1.8%
Maintenance & Alterations	16,087,109	17,105,946	1,018,837	6.3%
Interest Expense	5,409,989	5,008,846	(401,143)	-7.4%
Depreciation	37,043,127	38,444,159	1,401,032	3.8%
Other Expenses & Transfers:	43,174,710	48,021,873	4,847,163	11.2%
<b>Total Operating Expenses &amp; Transfers</b>	<b>552,071,721</b>	<b>572,740,125</b>	<b>20,667,404</b>	<b>3.7%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (11,119,182)</b>	<b>\$ (11,229,334)</b>	<b>\$ (110,152)</b>	<b>1.0%</b>
<b>Modified Cash Flow:</b>				
Add back Depreciation	37,043,127	38,444,159	1,401,032	3.8%
Less Capital Expenditures	(11,996,541)	(11,055,997)	940,544	-7.8%
Less Capital Reserve Funding	(5,795,474)	(4,535,191)	1,260,283	-21.7%
Less Debt Service Principal	(9,383,233)	(9,847,657)	(464,424)	4.9%
<b>Net Change Before Other Adj &amp; Transfers</b>	<b>(1,251,303)</b>	<b>1,775,980</b>	<b>3,027,283</b>	
Transfer from/(to) Admin Savings Rsrv	(3,301,740)	(5,002,025)	(1,700,285)	
Transfer from/(to) Budget Stabilization	500,000	1,000,000	500,000	
<b>Net Change Subtotal</b>	<b>(4,053,043)</b>	<b>(2,226,045)</b>	<b>1,826,998</b>	
Other Strategic Transfers from/(to) Reserves	4,169,892	2,332,013	(1,837,879)	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 116,849</b>	<b>\$ 105,968</b>	<b>\$ (10,881)</b>	



## Quasi-Independent State Entities Budget Requirement

- Public Law 2011, Chapter 616 mandates:

- Board of Trustees approval of the annual budget for travel, meals, and entertainment costs.
- Board of Trustees approval of the annual budget for contribution expenses – defined by this Public Law as membership dues & fees, gifts, donations, and sponsorships.
- Periodic reporting of the actual travel and contribution costs by the UMS to the Board of Trustees.
- Annual reporting to the Legislature by the UMS of contributions made to persons in the preceding year that were greater than \$1,000, and the total contributed to each.

### FY20 Budget

(\$000's)

Fund	Travel, Meals, Entertainment	Memberships, Gifts, Donations, & Sponsorships
E&G/Auxiliary	\$ 6,534	\$ 1,541
Restricted/Other	5,067	611
<b>Total</b>	<b>\$11,601</b>	<b>\$ 2,152</b>

E&G/Auxiliary are included in the proposed operating budgets. Restricted/Other includes grants & contracts, MEIF, Coop. Ext, etc. and is not included in the operating budgets.

- UMS “Use of University funds” policy generally prohibits charitable contributions; Sponsorships which advance the University’s mission are allowed. UMS “Travel & Expense” policy defines what constitutes allowable travel, meals, and entertainment expenses.

MAINE CENTER VENTURES  
**UMS BOARD OF TRUSTEES UPDATE**

MAY 20, 2019



Innovating Education. Advancing Maine.

# Primary Goals of the Maine Center

- Improve relevance to employer community
- Foster programmatic innovation
- Raise the profiles of the partner schools
- Improve financial sustainability
- Enhance economic impact on state



# Mission Statement

At the University of Maine Graduate and Professional Center, we believe outstanding public education is a catalyst for economic growth. We prepare leaders to solve the state's most pressing challenges, through cross-disciplinary, experiential, and market-driven graduate and professional programming. We are Maine-focused, nationally relevant, and globally competitive.

# Roadmap

- Harold Alfond Foundation (HAF) benchmarks
- Academic programming
- Workforce development and business engagement
- Branding and marketing
- Analytics
- Budget and fundraising
- Proposed building renderings

# HAF BENCHMARKS



# HAF Benchmarks

- **Report for Benchmark 3B Submitted April 30, 2019**
  - All Maine Center programs have coordinated and compatible calendars and class schedules
- **Benchmarks 4 & 5 to be completed September 1 (report due Oct. 1)**
  - #4
    - Graduate School of Business
      - **A.** Two Harold Alfond Professors of Business have been hired within the Graduate School of Business.
      - **B.** Admission to the USM MBA program has ended. The UMaine MBA program will continue in name with a new curriculum.
    - Maine Center Ventures
      - **C.** MCV has created at least two state-of-the-art “smart classrooms,” one in Portland and the other in Orono.

# HAF Benchmarks

- **Benchmarks 4 & 5 to be completed September 1 (report due Oct. 1) – cont'd.**
  - #5
    - Graduate School of Business
      - **A.** The MBA Program has been launched in Portland. All new UMaine MBA students now enter this MBA Program.
      - **B.** Including the two new Harold Alfond Professors of Business (and excluding the Graduate School of Business Leader), there are now six faculty assigned to the MBA Program within the Graduate School of Business and, by extension, the Maine Center. At least four are 100% dedicated to the MBA Program and based in Portland.
    - The Maine Center
      - **C.** There is clear evidence of leadership and coordination between and among the Maine Center programs.
      - **D.** The System Board of Trustees (1) has demonstrated that the Maine Center is among its highest system-wide priorities; (2) is engaged in the Maine Center's success; and (3) has been proactive and strategic in providing leadership and resources to address any challenges.
      - **E.** The System Board of Trustees and MCV have adopted a credible plan to achieve financial sustainability.

# ACADEMIC PROGRAMMING

# Muskie School of Public Service – Highlights

## Current programming

- 2 Masters degrees: Public Health and Policy, Planning, and Management
- PhD in Public Policy
- 7 graduate-level certificates including Healthcare Quality and Patient Safety, Applied GIS, and Public and Non-profit Management

## Opportunities

- Explore re-opening Masters in Healthcare Administration
- Explore adding specializations in health fields (e.g., health law, global health)
- Growing interest from the professional community in GIS training
- Offer executive education programming in-line with graduate certificates

# Maine Law – Highlights

## Current programming

- Offer J.D., J.S.D., and LL.M. degrees
- Two graduate certificates: Compliance and Information Privacy Law
- Variety of centers, clinics, and institutes (e.g., Cumberland Legal Aid Clinic, Arctic Futures Institute)

## Opportunities

- Develop a M.S. in Law designed for professionals; potential to offer this online
- Expand clinic offerings (e.g., transaction law, entrepreneurship)
- Enhance existing certificate in Information Privacy Law and develop additional certificate programming
- Expand online programming
- Develop specialized Master's degree

# Graduate School of Business – Highlights

## Current programming

- MBA – evening and online
- Accelerated MBA (4+1)
- Graduate business certificate
- 4 joint degrees in law, global policy, information systems, and engineering

## Recent HAF deliverables

- Appointed MBS and USM business faculty to GSB for joint curriculum development: Dr. Miles (MBS) & Dr. Sulieman (USM)
- 2 new hires:
  - HAF Associate Professor of Analytics (Dr. Lu)
  - HAF Assistant Professor of Accounting (Dr. Tollerson)
- 3 new analytics courses and 1 new accounting course added to Fall '19 schedule
- All GSB-MBA courses cross-listed and available for current USM MBA students in Fall '19 schedule
- Developing tech-enabled academic space – new classroom, meeting, and business incubation space linking Portland and Orono campuses

# Graduate School of Business – Highlights

## Recent news

- Online MBA ranked in top 100 by *U.S. News & World Report* and #28 globally by *CEO Magazine*
- Beginning Fall '19, the UMaine MBA will be available in Portland, Orono, and online
- Enrollments have increased by 15% per term since Spring '18

Semester	MBA headcount
Fall 2015	30
Fall 2018	87
Fall 2019	130 (projected)

# Graduate School of Business – Highlights

## **Opportunities** (being developed in collaboration with USM business faculty)

- Potential Masters degrees
  - Master of Science in Accounting
  - Master of Science in Business Analytics
- Potential MBA concentrations
  - **Business Analytics** – USM curriculum (est. Fall 2019)
  - **Forestry Business** – UMaine Forestry program (est. Fall 2019)
  - **Innovation Management** – UMaine Foster Center for Student Innovation (est. Fall 2019)
  - **Global Policy** – UMaine SPIA (est. Fall 2019)
  - **Transaction Law** – Maine Law (AY 19-20)
  - **Health Management & Policy** – Muskie School (AY 19-20)
  - **Food Business** – USM Food Studies program (AY 19-20)
  - **Industrial Management** – UMaine College of Engineering (AY 19-20)
  - **Outdoor Recreation** – UMF business faculty (AY 19-20)
- Potential accelerated degrees
  - 4+1 with the American University in Bulgaria (est. Summer 2019)
  - 4+1s with UMF and UMPI (est. AY 19-20)



# WORKFORCE DEVELOPMENT AND BUSINESS ENGAGEMENT

# Professional Education and Entrepreneurship

## Professional development and executive education opportunities

- April 2019 workshop series on Design Thinking for Business Applications
- Business Analytics course (in development)
- Innovation Engineering course with UMaine (projected Fall 2019)
- Designing an Executive Leadership Consortium (executive education cohort for rising managers) in collaboration with Maine employers
- Member of the UMS Micro-credential Steering Committee

## Entrepreneurship support

- Collaborations with New England Ocean Cluster and Maine Center for Entrepreneurs
  - Sponsoring “Entrepreneurship in the Blue Economy” series
  - Top Gun competition on May 23
- Discussing opportunities to offer a UMaine course on commercialization for startups in Portland

# BRANDING AND MARKETING

# Branding and Marketing Activities

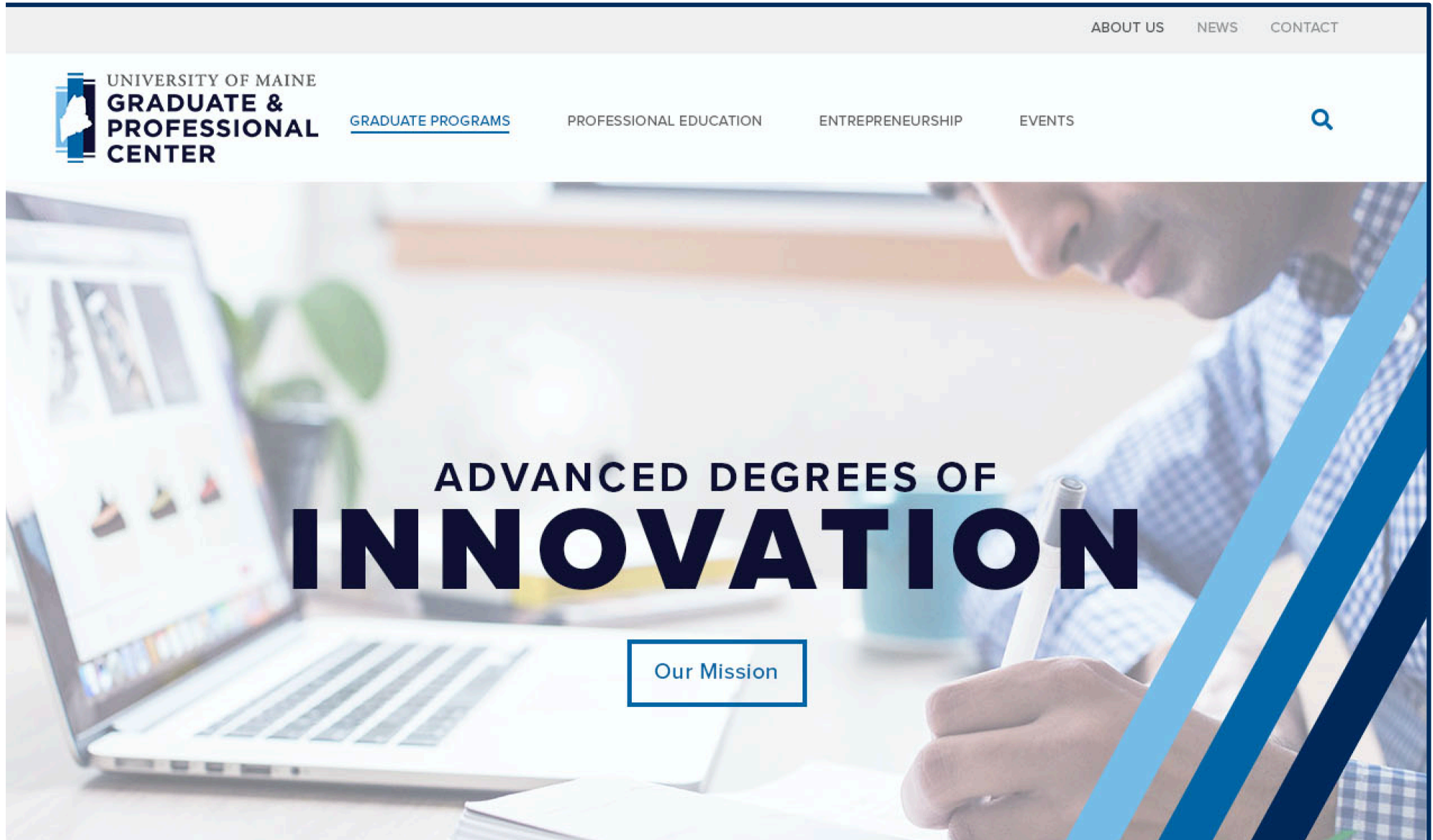
- Engaged Blaze Partners as marketing consultant
- 2019 implementation timeline:
  - **January – April**
    - Stakeholder interviews
    - Name, logo, mission, and visual identity
    - Marketing plan, style guide, and audience segments
    - Early stages of website development
  - **May and June:** Website development and launch
  - **Late June and July:** Marketing plan implementation strategy, campaign launch, and rollout
  - **August to September:** Ramp up selected advertising channels – PR, social media, paid search, radio, etc.
  - **October to December:** Standard retainer months

# Branding and Marketing



- Adjusts name to include the University of Maine to reinforce a system-wide integration
- Clarifies that each of the participating institutions are part of the public university system
- Overt connection to Maine
- Incorporates the colors in the University of Maine System: University of Maine Orono light blue, Maine Law mid-blue, USM navy)

# Website



# ANALYTICS

# Analytics

Hired analytics consultant in April 2019; tasked with:

- Analyzing the current and future job markets
- Determining what types of academic programming will meet the needs of those markets
- Researching the competitive landscape for graduate programming in business, law, and public policy



# BUDGET AND FUNDRAISING

# MCV FY19/20 Budget Highlights

HAF Deliverable	Amount	Timeline	Status
3A	\$1.25 million	April 2019	Received
3B	\$250,000	June 2019	Anticipated
4&5	\$1.5 million	November 2019	Anticipated

- Forecast to be on budget for FY19
- Anticipate raising \$3 million toward HAF match in FY20

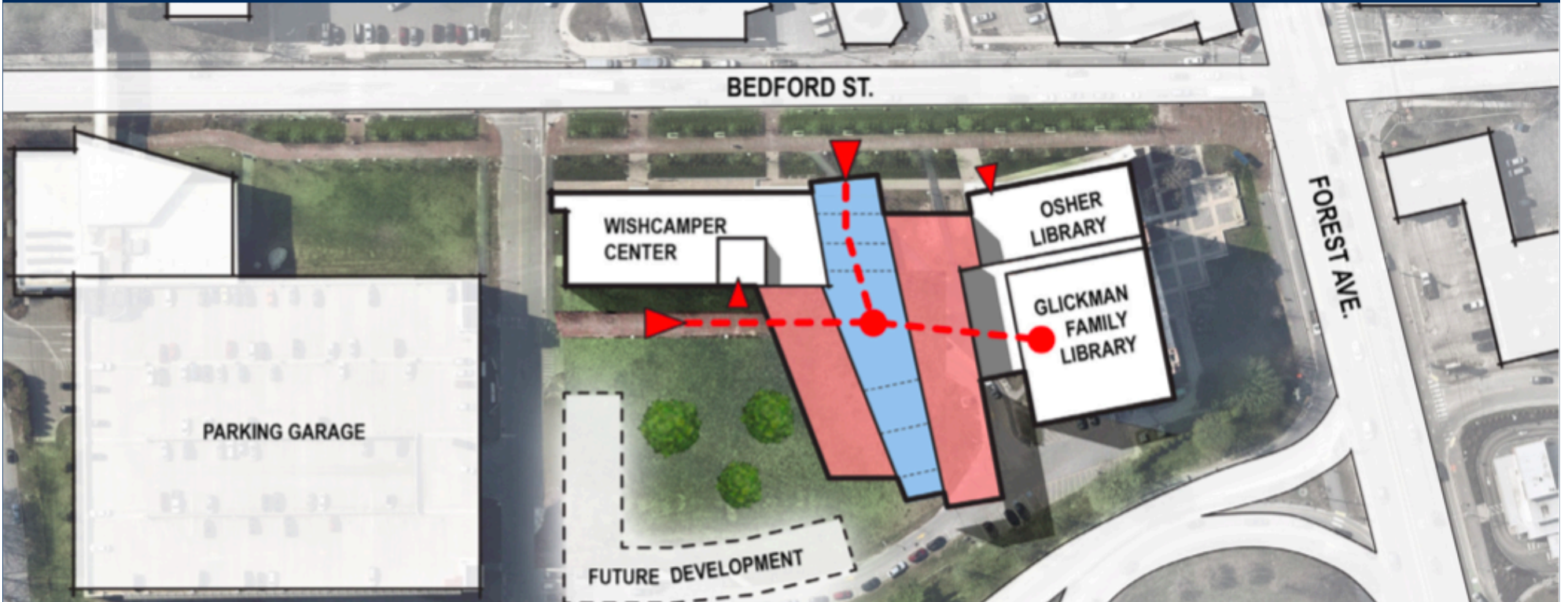
# MCV Fundraising

- Engaged Demont Associates as campaign consultant
- Formed Fundraising Steering Committee, met March 14, meeting again June 6
- Created Statement of Need and Fact Sheets
- Coordinating with USM and UMaine Foundations to ensure donor engagement consistency
- Feasibility study to assess fundraising capacity, interviews started in April 2019 and ending May/June 2019
- Based on the results of the study, MCV will come back to the Board of Trustees to discuss next steps at its July meeting

# Fundraising Steering Committee Members

- **Kurt Adams** – Summit Utilities
- **Wes Bonney** – retired, People's Heritage
- **Michael Boyson** – Morgan Stanley
- **Jonathan Crasnick** – People's United Bank
- **Ben Devine** – Devine Capital LLC
- **Robert Montgomery Rice/Susan Mellon** – Bangor Savings Bank
- **Shawn Gorman/Mike Mahoney** – LL Bean
- **Cyrus Hagge** – Project Management, Inc.
- **Kevin Mahaney** – Olympia Equity Investors
- **Charles Micoleau** – Curtis Thaxter
- **Robert Monks** – Monks O'Neil
- **Cary Olson-Cartwright** – UNUM
- **Tony Payne** – MEMIC
- **Hilary Rapkin** – WEX
- **John Ryan** – Wright-Ryan
- **Andy Smith** – Baker Newman Noyes

# PROPOSED BUILDING RENDERINGS







MAINECENTER.MAINE.EDU





*Maine's  
Public  
Universities*

UNIVERSITY OF MAINE SYSTEM

# MYFA

## Multi-Year Financial Analysis

**Ryan Low**

Vice Chancellor for Finance  
and Administration

May 20, 2018

# 8 Major Revenue & Expense Categories



Enrollment  
Tuition  
Unified Fee  
Appropriation  
Compensation  
Benefits-Internal-Regular  
Non-Compensation Expense  
Capital Expenditures

## Enrollment

## Dashboard

	FY20 FY20	FY21 FY21	FY22 FY22	FY23 FY23	FY24 FY24
Consumer price index	2.5%	2.4%	2.3%	2.3%	2.3%
Enrollment	1.6%	1.8%	1.6%	1.2%	1.3%
Aggregate of Campus Enrollment Mgmt Plans [undergraduate]	1.9%	1.8%	1.6%	1.2%	1.3%
In-State					
Unified					
Appropriation					
Competition					
Benefit					
Non-Campus					
Capital					
Additional Capital Investments	\$0	\$0	\$0	\$0	\$0
Savings Initiatives	\$0	\$0	\$0	\$0	\$0
Multi-Year Projection	(\$3,226,045)	(\$4,233,581)	(\$3,775,520)	(\$5,329,924)	(\$6,871,651)
% Total Budget Funded by State Appropriation	35.3%	34.8%	34.4%	34.0%	33.7%

## Enrollment

FY20FY21FY22FY23FY24

1.6%

1.8%

1.6%

1.2%

1.3%

1.9%

1.8%

1.6%

1.2%

1.3%

## 5-Year Enrollment Figures

# Early College

## Academic Partnerships

# Traditional Credit Hours



## Tuition

## Dashboard

	FY20 FY20	FY21 FY21	FY22 FY22	FY23 FY23	FY24 FY24
Consumer price index	2.5%	2.4%	2.3%	2.3%	2.3%
Enrollment	1.6%	1.8%	1.6%	1.2%	1.3%
Aggregate of Campus Enrollment Most Plans (undergraduate)	1.9%	1.8%	1.6%	1.2%	1.3%
In-State	3%				3%
Unif	3%				3%
App	3%				3%
Com	0%				0%
Ben	3%				3%
Non	5%				5%
Capital Expenditures & Debt Service	4.5%	5.0%	5.5%	6.0%	6.5%
Additional Capital Investments	\$0	\$0	\$0	\$0	\$0
Savings Initiatives	\$0	\$0	\$0	\$0	\$0
Multi-Year Projection	(\$3,226,045)	(\$4,233,581)	(\$3,775,520)	(\$5,329,924)	(\$6,871,651)
% Total Budget Funded by State Appropriation	35.3%	34.8%	34.4%	34.0%	33.7%

In-State, Undergraduate Tuition Rate<sup>1</sup>FY20FY21FY22FY23FY24

2.5%

2.4%

2.3%

2.3%

2.3%

# Appropriation

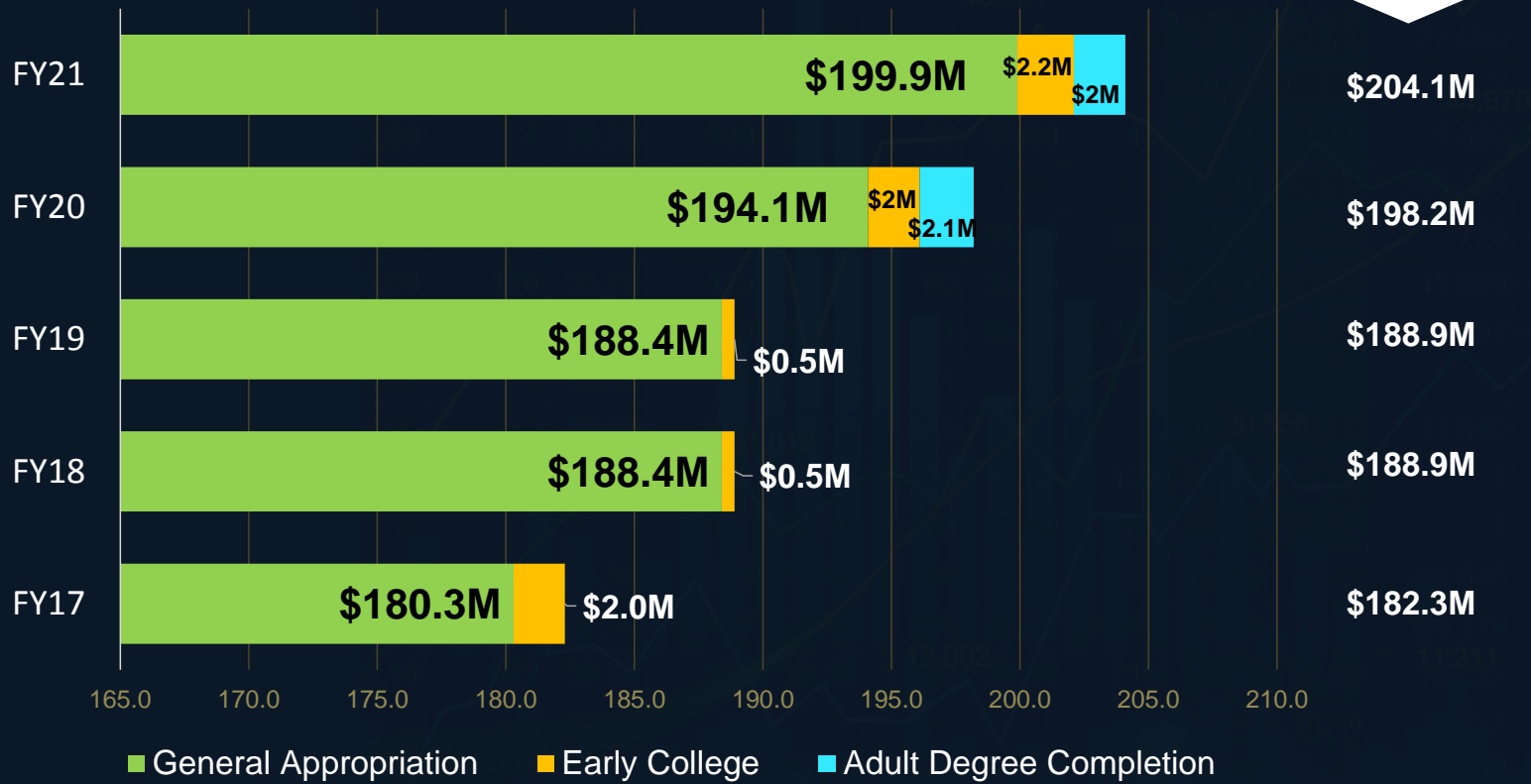
## Dashboard

	FY20 FY20	FY21 FY21	FY22 FY22	FY23 FY23	FY24 FY24
Consumer price index	2.5%	2.4%	2.3%	2.3%	2.3%
Enrollment	1.6%	1.8%	1.6%	1.2%	1.3%
Aggregate of Campus Enrollment Mgmt Plans [undergraduate]	1.9%	1.8%	1.6%	1.2%	1.3%
In-State Undergraduate Tuition Rate	2.5%	2.4%	2.3%	2.3%	2.3%
Unified	2.5%	2.4%	2.3%	2.3%	2.3%
Appropriation	3.0%	3.0%	2.3%	2.3%	2.3%
Compensation	3.0%	3.0%	2.3%	2.3%	2.3%
Benefit	3.0%	3.0%	2.3%	2.3%	2.3%
Non-Capital	3.0%	3.0%	2.3%	2.3%	2.3%
Capital	3.0%	3.0%	2.3%	2.3%	2.3%
Additional Capital Investments	\$0	\$0	\$0	\$0	\$0
Savings Initiatives	\$0	\$0	\$0	\$0	\$0
Multi-Year Projection	(\$3,226,045)	(\$4,233,581)	(\$3,775,520)	(\$5,329,924)	(\$6,871,651)
% Total Budget Funded by State Appropriation	35.3%	34.8%	34.4%	34.0%	33.7%



# Appropriation

## State Appropriation (in millions)



# Compensation

## Dashboard

	FY20 FY20	FY21 FY21	FY22 FY22	FY23 FY23	FY24 FY24
Consumer price index	2.5%	2.4%	2.3%	2.3%	2.3%
Enrollment	2.5%	2.4%	2.3%	2.3%	2.3%
Aggregate of Camp					1.3%
In-State, Und					1.3%
Unified Fee F					2.3%
Appropriation					2.3%
Compensation	3.0%	3.0%	3.0%	3.0%	3.0%
Benefits-Internal-Regular	53.2%	53.7%	53.7%	54.0%	54.3%
Non-Compensation Expense <sup>2</sup>	1.5%	1.5%	1.5%	1.5%	1.5%
Capital Expenditures & Debt Service	4.5%	5.0%	5.5%	6.0%	6.5%
Additional Capital Investments	\$0	\$0	\$0	\$0	\$0
Savings		\$0	\$0	\$0	\$0
Multi-Y	(	581)	(\$3,775,520)		871,651)
% Total Budget		34.8%	34.4%		33.7%

### Compensation

**FY20**

**FY21**

**FY22**

**FY23**

**FY24**

3.0%

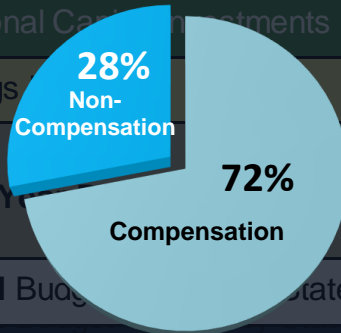
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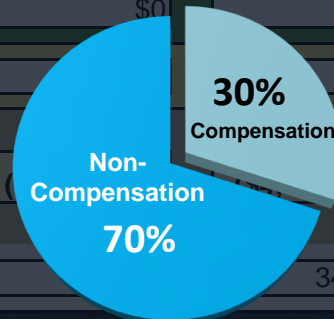
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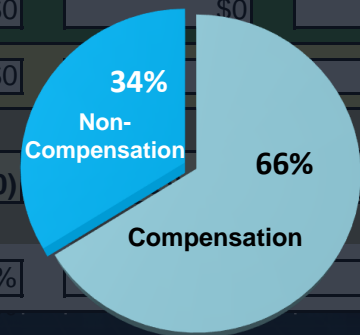
**FY20 E&G**



**FY20 Auxiliary**



**FY20 E&G and Auxiliary**





## Benefits-Internal-Regular

## Dashboard

	FY20 FY20	FY21 FY21	FY22 FY22	FY23 FY23	FY24 FY24
Consumer price index	2.5%	2.4%	2.3%	2.3%	2.3%
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Enrollment	1.6%	1.8%	1.6%	1.2%	1.3%
Aggregate of Campus Enrollment Mgmt Plans (undergraduate)	1.9%	1.8%	1.6%	1.2%	1.3%
In-State Undergraduate Tuition Rate	2.5%	2.4%	2.3%	2.3%	2.3%
Unified					2.3%
Appro					2.2%
Com					%
Benef					%
Non-					%
Capital					5%
Additional Capital Investments	\$0	\$0	\$0	\$0	\$0
Savings Initiatives	\$0	\$0	\$0	\$0	\$0
Multi-Year Projection	(\$3,226,045)	(\$4,233,581)	(\$3,775,520)	(\$5,329,924)	(\$6,871,651)
% Total Budget Funded by State Appropriation	35.3%	34.8%	34.4%	34.0%	33.7%

## Benefits-Internal-Regular

FY20FY21FY22FY23FY24

53.2%

53.7%

53.7%

54.0%

54.3%

## MYFA Benefit History

MYFA	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
15-19	53.3%	54.4%	55.7%	57.1%	58.6%					
16-21		52.4%	52.6%	53.6%	54.5%	55.5%				
17-21			52.4%	53.4%	54.1%	54.8%	55.4%			
18-22				53.0%	53.4%	53.6%	54.0%	54.4%		
19-23					53.4%	53.6%	54.1%	54.7%	55.3%	
20-24						53.2%	53.7%	53.7%	54.0%	54.3%

# Non-Compensation Expense Dashboard

## Dashboard

	FY20 FY20	FY21 FY21	FY22 FY22	FY23 FY23	FY24 FY24
Consumer price index	2.5%	2.4%	2.3%	2.3%	2.3%
Consumer price index	2.5%	2.4%	2.3%	2.3%	2.3%
Enr					1.3%
Aggre					1.3%
In-S					2.3%
Unif					2.3%
App					3%
Com					0%
Ben					3%
Non-					5%
Capital Expenditures & Debt Service	4.5%	5.0%	5.5%	6.0%	6.5%
Additional Capital Investments	\$0	\$0	\$0	\$0	\$0
Savings Initiatives	\$0	\$0	\$0	\$0	\$0
Multi-Year Projection	(\$3,226,045)	(\$4,233,581)	(\$3,775,520)	(\$5,329,924)	(\$6,871,651)
% Total Budget Funded by State Appropriation	35.3%	34.8%	34.4%	34.0%	33.7%

Non-Compensation Expense<sup>2</sup>

FY20

FY21

FY22

FY23

FY24

1.5%

1.5%

1.5%

1.5%

1.5%

## Capital Expenditures &amp; Debt Srv.

## Dashboard

	FY20 FY20	FY21 FY21	FY22 FY22	FY23 FY23	FY24 FY24
Consumer price index	2.5%	2.4%	2.3%	2.3%	2.3%
Enrollment	1.6%	1.8%	1.6%	1.2%	1.3%
Aggregate of Campus Enrollment Mgmt Plans (undergraduate)	1.9%	1.8%	1.6%	1.2%	1.3%
In-State, Undergraduate				2.3%	2.3%
Unified Fee Program				2.3%	2.3%
Appropriation				2.3%	2.3%
Compensation				3.0%	3.0%
Benefits-Interim	4.5%	5.0%	5.5%	6.0%	6.5%
Non-Compensation				1.5%	1.5%
Capital Expenditures	\$25,438,845	\$26,688,563	\$27,762,388	\$29,910,630	\$31,361,675
Additional Capital Investments	\$0	\$0	\$0	\$0	\$0
Savings Initiatives	\$0	\$0	\$0	\$0	\$0
Multi-Year Projection	(\$3,226,045)	(\$4,233,581)	(\$3,775,520)	(\$5,329,924)	(\$6,871,651)
% Total Budget Funded by State Appropriation	35.3%	34.8%	34.4%	34.0%	33.7%

Dashboard		FY20	FY21	FY22	FY23	FY24
Consumer price index		FY20	FY21	FY22	FY23	FY24
Consumer price index		2.5%	2.4%	2.3%	2.3%	2.3%
Enrollment		2.5%	2.4%	2.3%	2.3%	2.3%
Aggregate of Campus Enrollment		1.6%	1.8%	1.6%	1.2%	1.3%
In-State, Undergraduate Tuition Rate <sup>1</sup>		2.5%	2.4%	2.3%	2.3%	2.3%
Unified Fee Rate						
Appropriation (fixed)						
Compensation						
Benefits-Internal-F						
Debt Service						
Non-Compensatio						
Capital Expenditures & Debt Service						\$25,438,84
Depreciation Funding						66.0%
Additional Capital Investments						
Multi-Year Projection						
Savings Initiatives						
Percent of Total Budget Funded by State Appropriation						35.3%
Multi-Year Projection						
Net Funded by State Appropriation						
% Total Budget Funded by State Appropriation						

# Dashboard

	FY20 FY20	FY21 FY21	FY22 FY22	FY23 FY23	FY24 FY24
Consumer price index	2.5%	2.4%	2.3%	2.3%	2.3%
Consumer price index	2.5%	2.4%	2.3%	2.3%	2.3%
Enrollment	1.6%	1.8%	1.6%	1.2%	1.3%
Aggregate of Campus Enrollment Mgmt Plans [undergraduate]	1.9%	1.8%	1.6%	1.2%	1.3%
In-state, Undergraduate Tuition Rate <sup>1</sup>	2.5%	2.4%	2.3%	2.3%	2.3%
Unified Fee Rate	2.5%	2.4%	2.3%	2.3%	2.3%
Appropriation (fixed)	3.0%	3.0%	2.3%	2.3%	2.3%
Compensation	3.0%	3.0%	3.0%	3.0%	3.0%
Benefits-Internal-Regular	53.2%	53.7%	53.7%	54.0%	54.3%
Non-Compensation Expense <sup>2</sup>	1.5%	1.5%	1.5%	1.5%	1.5%
Capital Expenditures & Debt Service	\$25,438,845	\$26,688,563	\$27,762,388	\$29,910,630	\$31,361,675
Depreciation Funding	66.0%	75.0%	84.0%	95.0%	100.0%
Additional Capital Investments	\$0	\$3,214,021	\$7,648,891	\$11,975,116	\$15,304,986
Multi-year Projection	(\$3,226,045)	(\$7,447,602)	(\$11,424,411)	(\$17,305,040)	(\$22,176,637)
Percent of <b>Total</b> Budget Funded by State Appropriation	35.3%	34.8%	34.4%	34.0%	33.7%

# Scenarios

# Scenario A

New Base Model  
with Compensation  
at 3% and  
Adjusted Benefits





# Scenario B

Scenario A plus  
Flat Enrollment



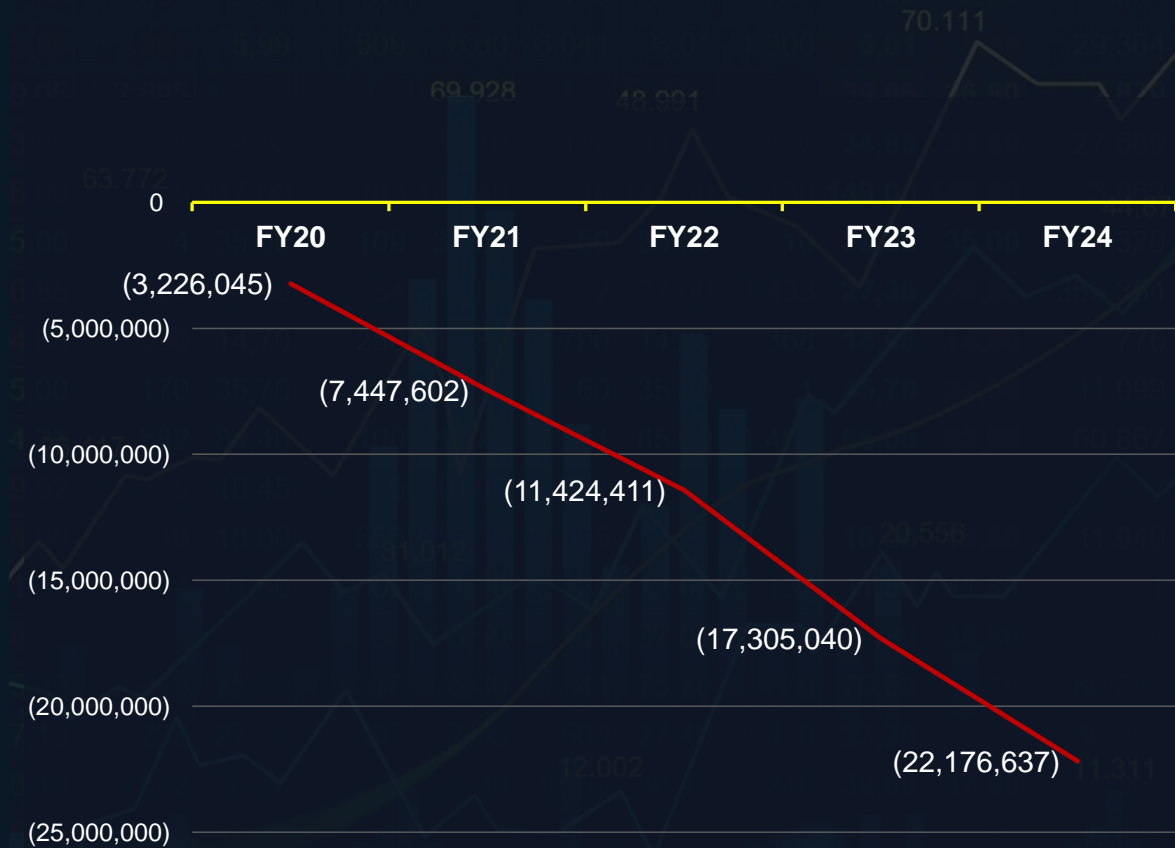
# Scenario C

Scenario A plus  
5% Enrollment  
Decline

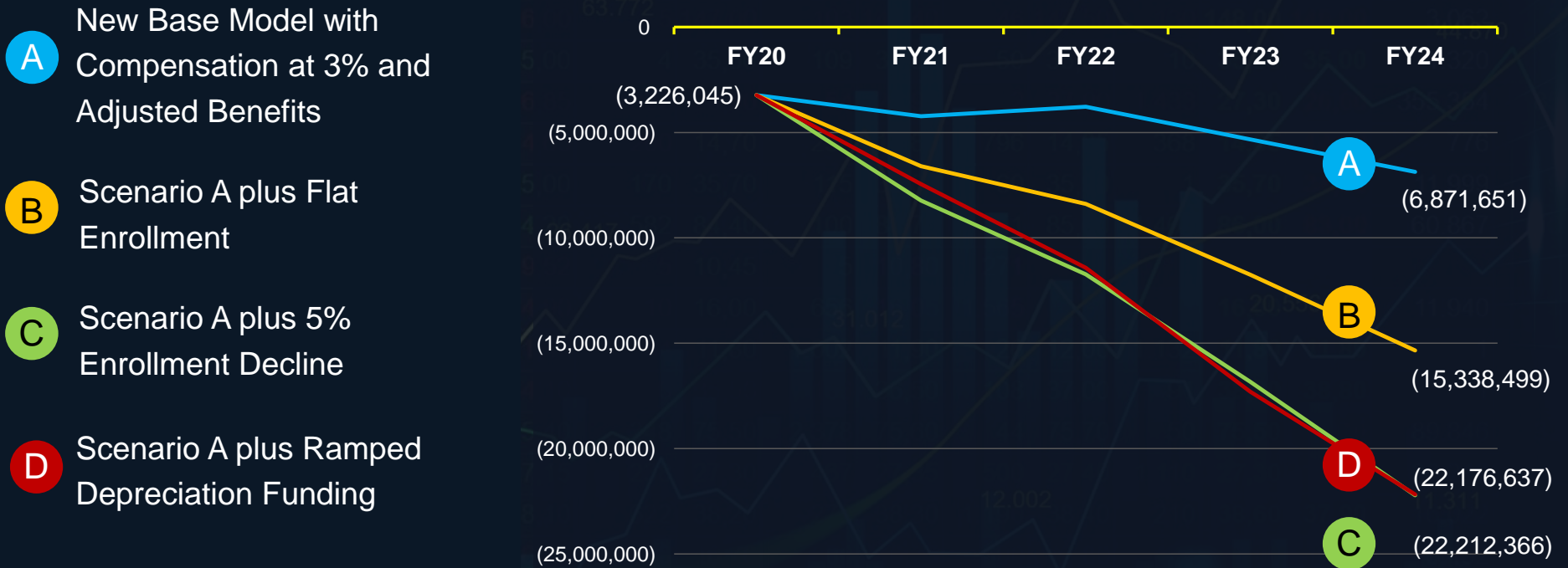


# Scenario D

Scenario A plus  
Ramped Depreciation  
Funding



# Scenarios A, B, C, D



# Questions



UMS Board of  
Trustees Meeting  
May 19-20, 2019

# Data Science and Biomedicine:

Recommendations for the  
University of Maine System

Joan Ferrini-Mundy, President, University of Maine  
Glenn Cummings, President, University of Southern Maine







## UMS Board of Trustees Declaration of Strategic Priorities to Address Critical State Needs (12/18/18)

2

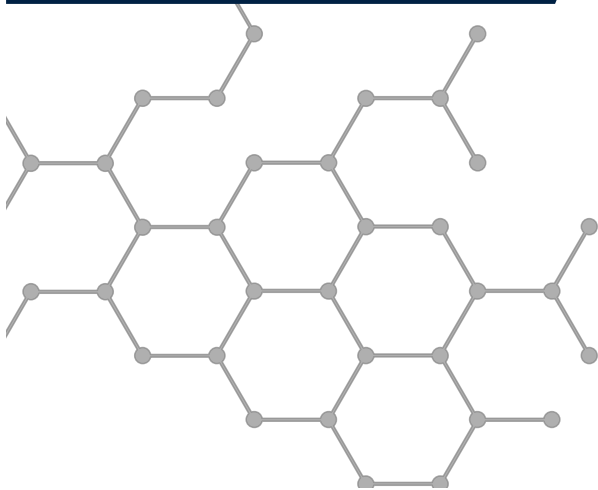
### Aligning Academic Programs and Innovation to Drive Student Success and Employer Responsiveness

#### Action 2

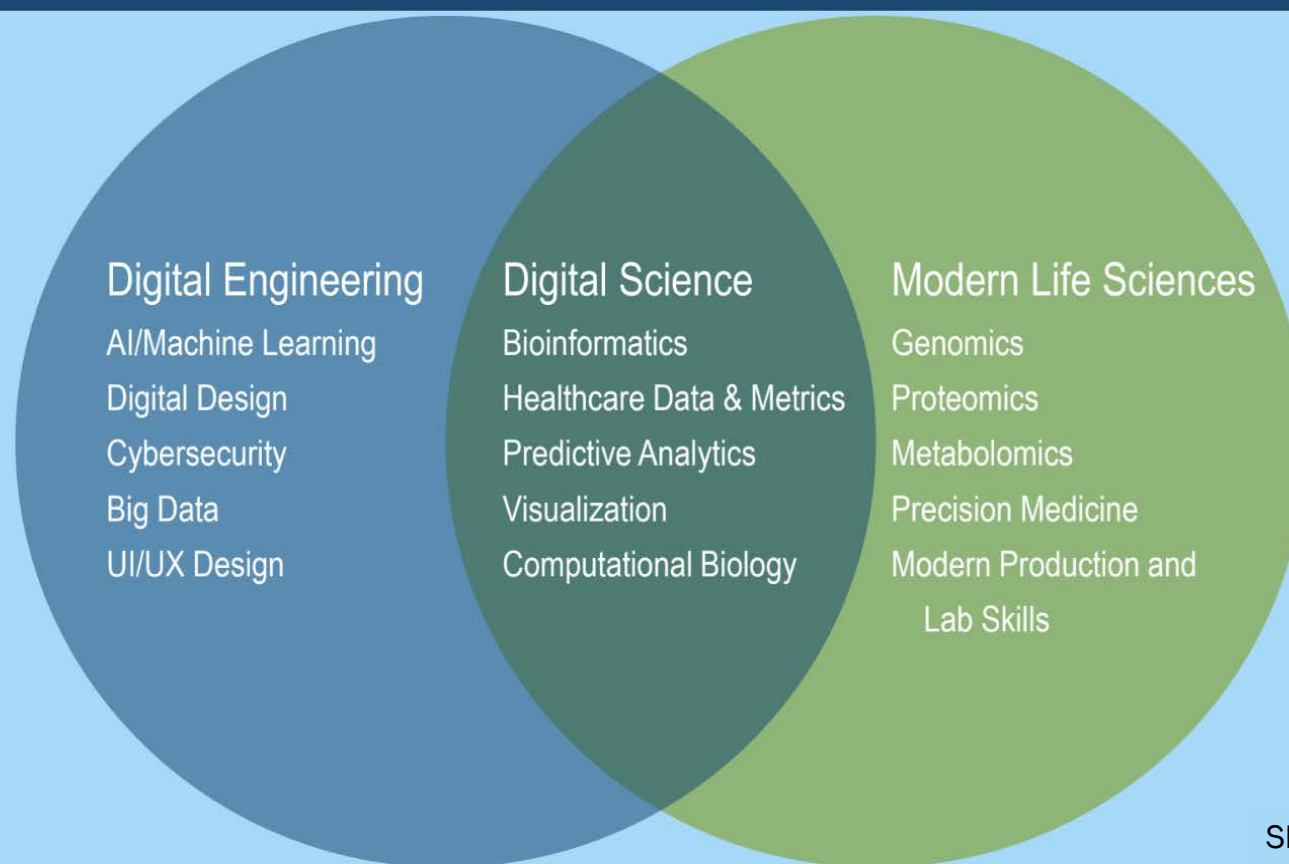
UMS will demonstrate academic responsiveness by establishing interdisciplinary programs with innovative pedagogies that prepare students to engage in key areas emerging for the growth of Maine's digital economy.

#### Immediate Deliverable

Building on work already underway, the Presidents of the University of Maine and University of Southern Maine will report to the VCAA, Chancellor, and the Board with specific recommendations for programmatic innovations in the areas of data science (including artificial intelligence and machine learning), biomedical engineering, and health-related biosciences and genetics, with a timeline for implementation, by May 2019.



## Focused disciplines highly complementary



Slide Credit: Ideals.org



NSF 18-058  
Dear Colleague Letter: Convergence Research at the National Science Foundation

March 23, 2018

Dear Colleagues:

Growing Convergence Research at the National Science Foundation

convergence is needed to solve complex scientific problems and develop novel frameworks to catalyze scientific discovery.

- Research driven by a specific and complex problem or opportunity, whether it arises from discovery or from a specific application.
- Deep integration across disciplines. A convergence research area is a community and languages become interdisciplinary communities.

The convergence paradigm builds upon transdisciplinary integration of life sciences, physical sciences, engineering, and medicine report and research in the 21st century.

This Dear Colleague Letter (DCL) seeks to identify external organizational and disciplinary boundaries, identify these new areas and specific projects, research strategies. Prospective must outline advances. The research areas and proposed projects.

Interested researchers who would like to compete for project within it to the [converpro@nsf.gov](mailto:converpro@nsf.gov) mail considered for FY 2019 support, the prospectus acknowledged via email. The prospectus should include a description of a potential future research area, an exploratory research project within the area of research project; and (v) a listing of the senior researchers.

Researchers describing the most promising research proposal must be prepared in accordance to the Proposal and Award Policies and Procedures (PAPAP) to submit the invited proposal. The total proposed project must be prepared in accordance to the Proposal and Award Policies and Procedures (PAPAP) to submit the invited proposal. The total proposed project must be prepared in accordance to the Proposal and Award Policies and Procedures (PAPAP) to submit the invited proposal.

Prospective principal investigators are advised from external reviewers as to the merits of the proposal.

This DCL remains in effect for twelve months from the date of publication.

POINTS OF CONTACT

Questions about convergence should be directed to the following:

Sincerely,

Joanne S. Tornow, Assistant Director (Acting), James Kurose, Assistant Director, CISE  
William J. (Jim) Lewis, Assistant Director (Acting), Dawn M. Tilbury, Assistant Director, ENG  
William E. Easterling, Assistant Director, GEO  
C. Suzanne Iacono, Office Head, OIA  
Rebecca L. Keiser, Office Head, OISE  
Anne Kinney, Assistant Director, MPS  
Fay Cook, Assistant Director, SBE

National Science Foundation

News Funding & Awards  
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# Convergence

## The Future of Health



# Science

Home News

ScienceWebinars

SHARE LETTERS

## Convergence: The Future of Health

Phil Sharp<sup>1,2,\*</sup>, Susan Hockfield<sup>1,4,\*</sup>

Science 10 Feb 2017; Vol. 355, Issue 6325, pp. 589  
DOI: 10.1126/science.aam8563

Article Figures 8



LETTERS

Edited by Jennifer Nills

### Convergence: The future of health

THE INTEGRATION of the life sciences, physical sciences, mathematics, engineering, and information technology—often referred to as Convergence—has emerged in recent years as a powerful approach to research with the potential to lead to medical and technological breakthroughs. As emphasized in the report, “Convergence: The future of health” (1), research funding is critical to realizing the promise of Convergence.

As the new administration prepares to appoint its science leadership and to set research priorities, we urge them to recognize that science and technology are part of the infrastructure of the country. These fields are the source of both new jobs and the capacity to meet future challenges. Investing in the infrastructure of education and science is investing in the future economic health of the country.

Given that the National Institutes of Health (NIH) fund the majority of the biomedical research performed in the United States, the new administration should request sustained increases to the NIH budget, with funding targeted for Convergence research specifically. Beyond the NIH, support for Convergence at the National Science Foundation (NSF), the Defense Advanced Research Projects Agency, and the Department of Energy (DOE) is critical to enhance the impact of multidisciplinary disciplines necessary to foster Convergence.

The White House Office of Science and Technology Policy should coordinate partnerships across science agencies with relevant expertise. Convergence needs a coordinated strategic and funding plan across the science agencies to achieve its potential to supply the innovations that will give physicians and patients the diagnosis

# A Convergence to a New Era

Chairs  
Barton Haynes and David  
Organizing Committee  
Patricia D'Souza, Shyam R  
Shadi Mamaghani (NIBIB)

NIH National Institute of Biomedical Imaging and Bioengineering

Page 1

# A New Era of Convergence

Committee on a Vision for the Future of Health

# Convergence

## Facilitating Transdisciplinary Integration of Life Sciences, Physical Sciences, Engineering, and Beyond



NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES

## Convergence

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Convergence Research is generally inspired by the need to address a specific challenge or opportunity, whether it arises from deep scientific questions or pressing societal needs.

As experts from different disciplines pursue common research challenges, their knowledge, theories, methods, data, research communities and languages become increasingly intermingled or integrated. New frameworks, paradigms or even disciplines can form sustained interactions across multiple communities. (National Science Foundation)

Convergent science is at its core an expansion of the concept of “team science,” where the basic scientist pursuing new discoveries is engaged from day one with the engineer, medical doctor and entrepreneur to seamlessly transition discoveries to impact in the lives of people who most need the innovation. Scientists have performed science for decades in individual laboratories within isolated departments. We have found that integrating discovery science with partners far down the chain of application is essential to speeding the transition of discovery to impact. (Rich Superfine, Chair, Applied Physical Sciences, UNC-CH, [University Gazette, UNC-CH, 17-January-2018](#) )





# Convergence

6



- 2019-Mar-23** NSF 18-058: Dear Colleague Letter: Growing Convergence Research
- 2019-Mar-29** Visit to SCIS by Jim Kurose, Assistant Director, NSF CISE
- 2018-Sep** [A Convergence Research Approach to an Effective HIV Vaccine](#) joint NIAID/NIBIB workshop.
- 2017-Jul** [A New Vision for Center-Based Engineering Research.](#)  
National Research Council (NRC), Committee on a Vision for the Future of Center-Based Multidisciplinary Engineering Research
- 2016-June** [Convergence: The Future of Health](#) A report from MIT Washington
- 2014-Jun** [Convergence: Facilitating Transdisciplinary Integration of Life Sciences, Physical Sciences, Engineering, and Beyond](#)  
National Research Council (NRC), Committee on Key Challenge Areas for Convergence and Health; Board on Life Sciences; Division on Earth and Life Studies



## Computer and Information Scientists

Median Annual Wage May 2018  
**\$118,370**

### Job Outlook

Employment of computer and information research scientists is **projected to grow 19 percent from 2016 to 2026, much faster than the average for all occupations.** Computer scientists are likely to enjoy excellent job prospects, because many companies report difficulties finding these highly skilled workers.

Source: <https://www.bls.gov/ooh/computer-and-information-technology/computer-and-information-research-scientists.htm>



## Biochemists and Biophysicists

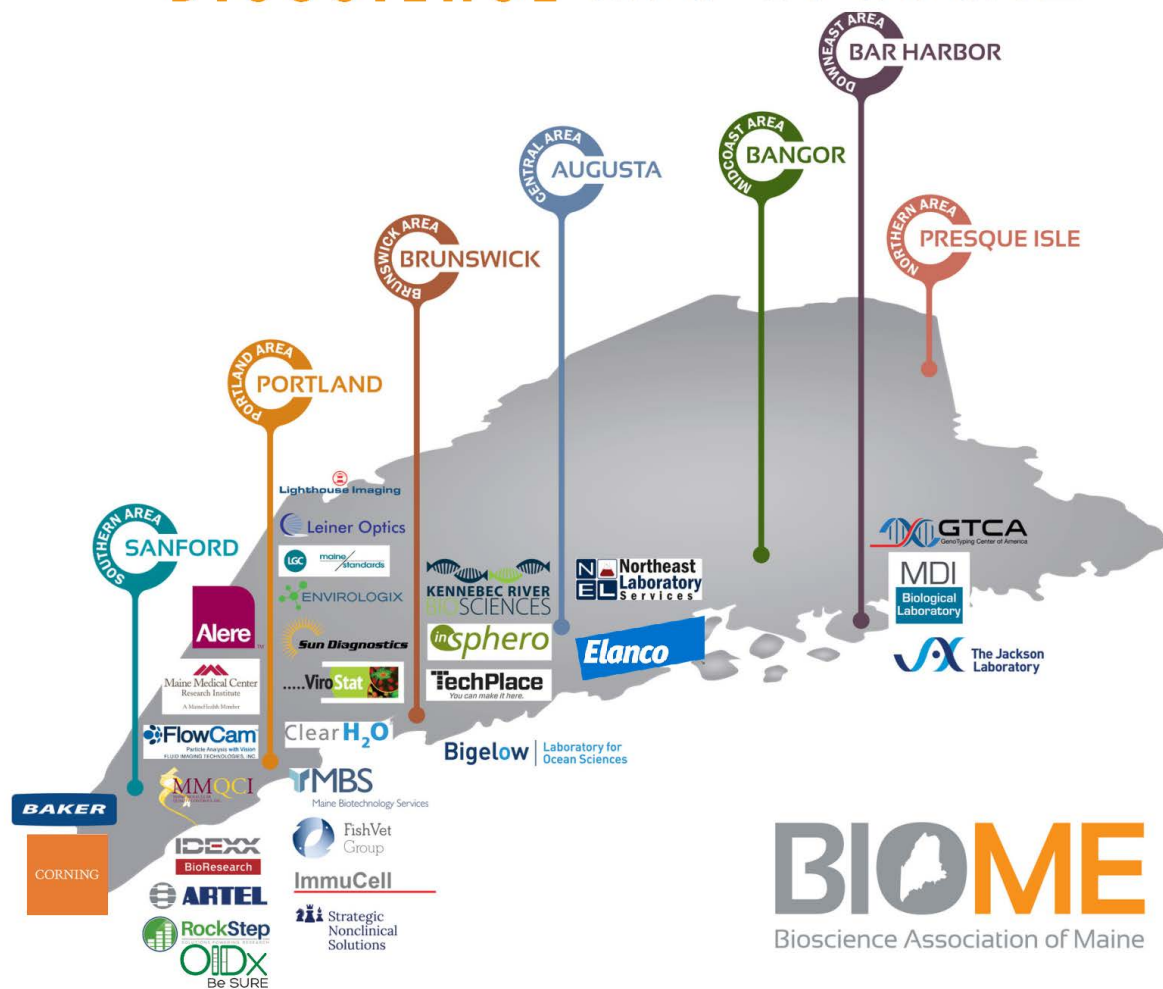
### Job Outlook

Employment of biochemists and biophysicists is projected to grow 11 percent from 2016 to 2026, faster than the average for all occupations. More biochemists and biophysicists will be needed to use the knowledge they have gained from basic research to develop biological products and processes that improve people's lives.

Median Annual Wage May 2018  
**\$92,280**

Source: <https://www.bls.gov/ooh/life-physical-and-social-science/biochemists-and-biophysicists.htm>

# BIOSCIENCE MAP OF MAINE





## Why we are ready for bold new academic opportunities Maine in these areas now:

9

The University of Maine has a first-rate interdisciplinary research base and well established research and academic partnerships across Maine in convergent research at the intersection of data science and biomedicine.

**Research and academic partnerships across Maine**

The University of Maine and the University of Southern Maine have established programs that are evolving to address statewide needs and student interests

**Opportunities for internships and instructional collaborations**

**Maine Economic Development**

The IDEALS project will bring strength and capacity to the preparation of a workforce in this area

**IDEALS project**

**Programs that address statewide needs and student interests**

The University of Southern Maine has partnerships and direct access to Portland-based biomedical science companies and opportunities for internships and instructional collaborations.

Want to bring companies and people to Maine; biotechnology one of the 7 strategic technology sectors; biopharmaceuticals a FOCUS Maine area



## What we have to offer already: UMaine

10

### Undergraduate degrees

- Computer Science (both BS and BA)\*
- Statistics (BA)\*
- New Media (BA)\*
- Biochemistry (BS)\*
- Biology (BS)\*
- Biomedical Engineering (BS)\*
- Biophysics (Concentration under BS in Physics)
- Communications Sciences and Disorders (BA)\*
- Microbiology (BS)\*
- Molecular and Cellular Biology (BS)\*
- Neuroscience (Minor for BS in Biology or BA in Psychology)\*
- Nursing (BS)
- Psychology (BA)\*

\* has associated minor

### Graduate degrees

- GSBSE degrees (next slide)
- PhD programs in:
  - Computer Science
  - Spatial Informatics
  - Electrical and Computer Engineering
  - Chemical Engineering
  - Biochemistry and Molecular Biology

### Other Opportunities

- Maine Track MD (Tufts University School of Medicine)





## UMaine's Graduate School of Biomedical Sciences and Engineering (GSBSE)

11



A statewide education and research consortium dedicated to the training and professional development of graduate students in Biomedical Science and Engineering.

The GSBSE includes over 150 faculty members, 58 graduate students, and 51 alumni, many who work in industry and research labs in Maine.

### Partners

- Jackson Laboratory
- Mount Desert Island Biological Laboratory
- Maine Medical Center Research Institute
- University of New England

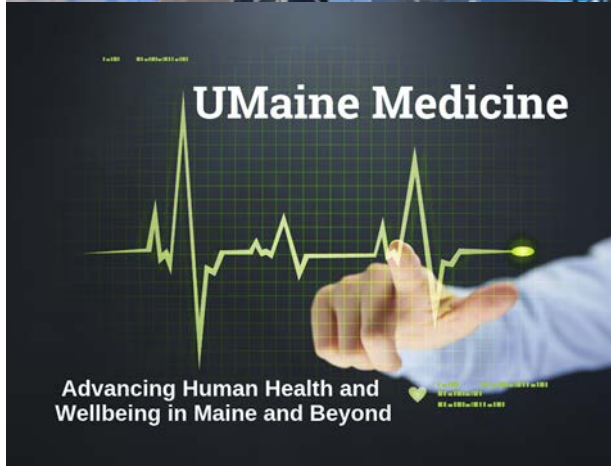
### Degrees

- PhD in Biomedical Science
- PhD in Biomedical Engineering
- Professional Science Masters in Bioinformatics





# UMaine Medicine



*Advancing Human Health and Wellbeing in Maine and Beyond*

## What is UMaine Medicine?

A transformative and coordinated community of over 100 collaborating researchers and educators that in partnership with health care providers and other stakeholders are dedicated to the advancement of human health and wellbeing in the state of Maine and beyond, through discovery and learning in health and life sciences, from basic and translational research, to clinical practices and healthcare workforce development.

### Vision

To make Maine a model for a healthy state

### Mission

To develop through innovative and coordinated research, education, and strategic partnerships transformative solutions that enhance the health and wellbeing of the citizens of Maine and beyond

### Thrust Areas

- Rural Healthcare & Community Wellbeing
- Immune System - Diseases & Disorders
- Diagnostic Medicine
- Medical Humanities



## UMaine Medicine

*Where are we focusing our efforts?*



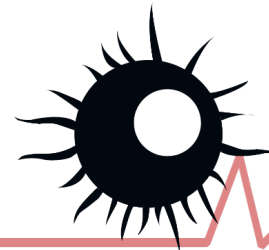
### Rural Health

Rural  
Healthcare &  
Community  
Wellbeing



### Medical Humanities

Arts & Bioethics &  
Social Sciences



### Immune System

Diseases &  
Disorders



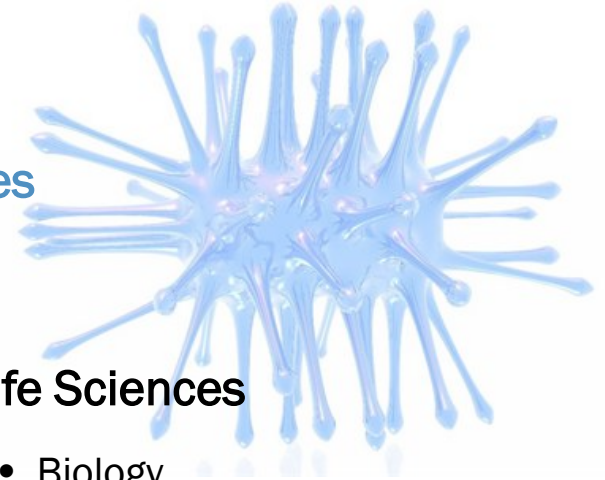
### Diagnostic Medicine

Bioimaging &  
Radiomics



# UMaine Medicine

Over 100 Faculty in Health and Life Sciences



14



## Health

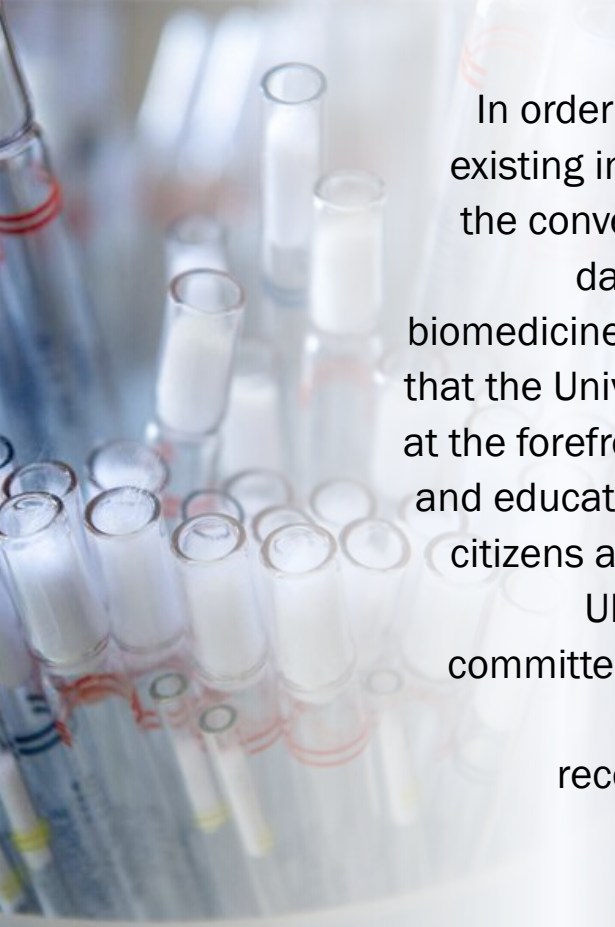
- Nutrition
- Nursing
- Kinesiology
- Pre-Med
- Bioinformatics
- Biomedical Science
- Biomedical Engineering
- Psychology

## Life Sciences

- Biology
- Biophysics
- Biochemistry
- Neuroscience
- Microbiology
- Social Work
- Sociology
- Ethics
- Communication Sciences and Disorders

## Recommendations of UMaine Data Science for Biomedicine in Maine Committee

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In order to build on the existing infrastructure in the convergent areas of data science and biomedicine and to ensure that the University remains at the forefront of research and education for Maine's citizens and beyond, the UMaine working committee recommends the following recommendations

- **Recommendation 1** Establish the Maine Center for Convergent Science
- **Recommendation 2** Support, Enable, and Create New and Existing Educational Programs
- **Recommendation 3** Incentivize Cross-Disciplinary, Convergent Science and Engineering
- **Recommendation 4** Engage Industry from Day One
- **Recommendation 5** Fund Faculty Across Academic Units
- **Recommendation 6** Develop Infrastructure, Educational and Laboratory Space



## What we have to offer already: USM

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### Undergraduate Degrees

- Biochemistry
- Biology
  - *Biotechnology Chemistry Concentration*
- Computer Science
- Cyber Security
- Geophysics Information Systems
  - *Certificate in Applied GIS*
- Electrical Engineering
- Mechanical Engineering
- Health Science
- Information Technology
- Nursing
- Psychology
- Mathematics
- Public Health

### Graduate Degrees

- Biology
- Nursing
- Public Health
- Computer Science
- Grad Certificate in Data Science

### Degrees in Development

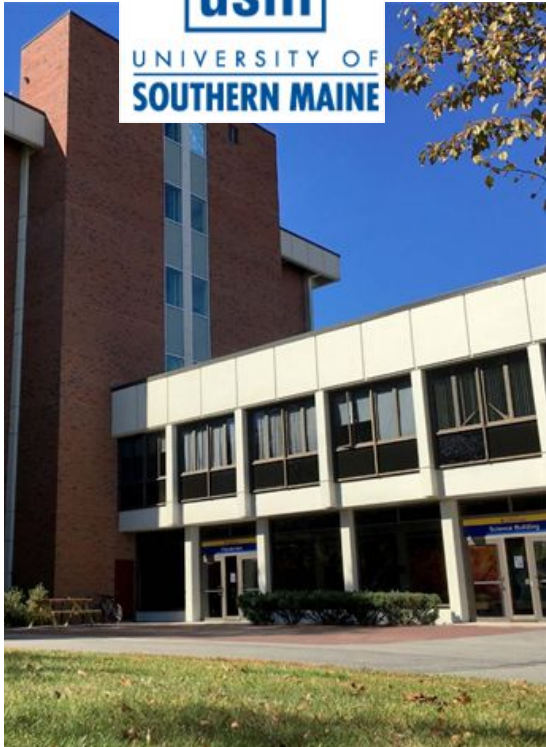
- MS CyberSecurity
- MS Data Science
- Graduate Certificate in Cybersecurity





## What we have to offer already: USM

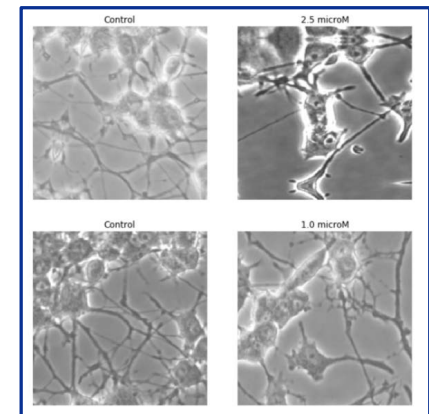
17



### Dubyak Center for Digital Science & Innovation

With a focus on advancing the technical workforce, the Center supports endeavors into digital science, technical partners in the community, and multi-disciplinary innovation.

The Center also links with entrepreneurship, design, and creativity.



*Example of Recent Research:*  
94.3% success algorithm for detection and dosage identification for Arsenic exposed cells from large data set images.



## What we have to offer already: USM

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### Dubyak Center for Digital Science & Innovation

- Computer Science, Data Science, Cybersecurity, Product & Prototype Development
- Interdisciplinary Research
- Partnerships with Industry – *including MMCRI, IDEX, WEX, Covetrus, and MCA*
- Workforce Development
- 9,000 sq ft
- K-12 STEM outreach and STEP-up STEM
- Ci2 Lab, Maker Space, 3D Printing, VR
- Composite Engineering Research Lab (CERL)





## What we have to offer already: USM

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UNIVERSITY OF  
SOUTHERN MAINE



### John Mitchell Center and Science Building Research Facilities

- Applied Medical Research Labs
- Microbiology and Chemistry Research Labs
- Computational Research Lab
- Prototype/Engineering Capabilities
- Interprofessional Health Education Facility
- Environmental Entomology Research Lab
- Access to national medical data bases
- Partnership with Maine Medical Center Research Institute (MMRCI)





## What we have to offer already: USM

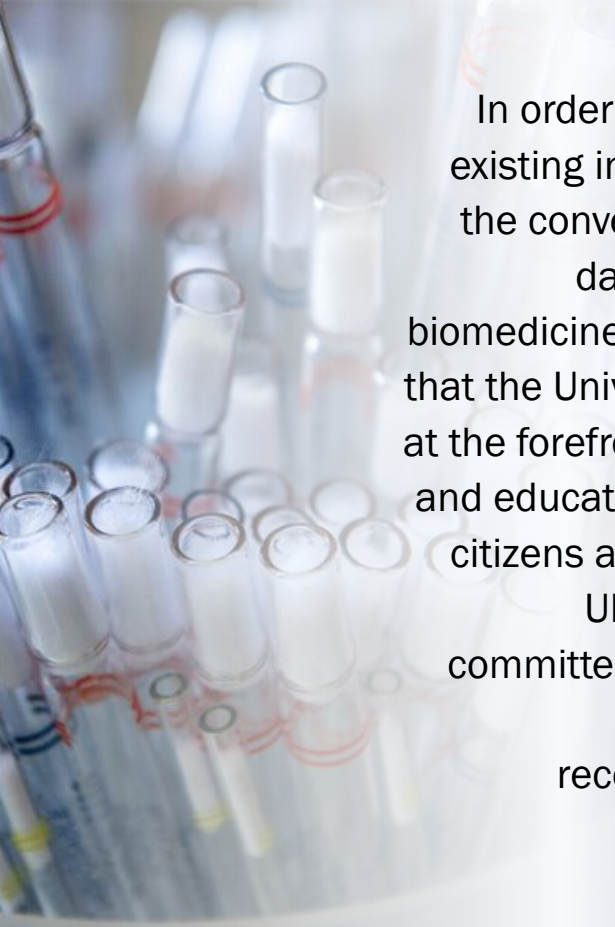
20



Through innovative and collaborative public service, the Cutler Institute advances and supports the well-being of individuals, families, and communities.

## Recommendations of UMaine Data Science for Biomedicine in Maine Committee

21



In order to build on the existing infrastructure in the convergent areas of data science and biomedicine and to ensure that the University remains at the forefront of research and education for Maine's citizens and beyond, the UMaine working committee recommends the following recommendations

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# Questions & Discussion

