

University of Maine System – Board of Trustees Meeting  
**November 13-14, 2022**  
at the University of Maine at Farmington

**AGENDA**

**Sunday, November 13, 2022**

**Call to Order @ 2:45 pm**

The Board will go directly into Executive Session under provisions 1 MRSA Section 405 6-A, C, & D.

**Executive Session** from 2:45 pm to 4:45 pm, The Landing, Olsen Student Center

**Public Meeting @ 5:15 pm** – Olsen Student Center, North Dining Hall

Tab 1 - [UMF Campus Presentation](#)

**Reception @ 6:15 pm (Cash Bar)** – Emery Arts Center  
(By Invitation Only)

**Dinner @ 6:45 pm** – Black Box Theatre, Emery Arts Center  
(By Invitation Only)

**Monday, November 14, 2022**

**Coffee & Networking @ 8:00 am**

**Call to Order/Reconvene @ 8:30 am** – Olsen Student Center, North Dining Hall

**Citizen Comment**

**Individuals who wish to participate in Citizen Comment must indicate their name and topic on the signup sheet, which will be available in the meeting room on November 14<sup>th</sup> starting at 8:00 am until 8:25 am.**

*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**

Tab 2 - [Proposed Revision to Board of Trustee Policy 103 Bylaws](#)

**Chancellor's Report**

Tab 3 - [Unified Accreditation and Unified Catalog Update](#)

Approx. 9:30 am

**Vice Chancellor for Academic Affairs' Report**

Tab 4 - [Academic Affairs Update](#)

**Vice Chancellor for Research and Innovation Report**

Tab 5 - [Research and Innovation Update](#)

Approx. 10:30 am

**Vice Chancellor for Strategic Initiatives' Report**

Tab 6 - Strategic Planning Update

Tab 7 - UMS TRANSFORMS Update

**Vice Chancellor for Finance and Administration & Treasurer's Report**

Tab 8 - Finance & Administration Update

Approx. 11:20 am

**Action Items**

Tab 9 - FY2023 Proposed Operating Budget Revisions

Tab 10- Energy Savings Performance Contract (ESPC) & Financing Authorization, UMF

Tab 11 - Proposed Changes to Board of Trustee Policy 401 – *General Equal Opportunity*

Tab 12 - Proposed New Board of Trustees Policy 315 – *Commemorative Naming and Renaming of Academic Units or Programs*

Tab 13 - Proposed Changes to Board of Trustee Policy 803 – *Naming and Renaming of Physical Facilities*

Tab 14 - Proposed Changes to Board of Trustee Policy 301.3 – *University of Southern Maine Mission*

Tab 15 - Confirmation of Faculty and Student Representatives to the Board of Trustees

Tab 16 - Tenure Request, Professor in the College of Education and Human Development, UM

Tab 17 - Tenure Request, Professor in the College of Engineering, UM

Tab 18 - Tenure Request, Professor in the Department of Counselor Education, USM

Approx. 11:50 pm

**Consent Agenda**

Tab 19 - Acceptance of Minutes

October 24, 2022 Academic & Student Affairs Committee

Tab 20 - New Academic Program Proposal: B.S. Business Administration, Business Information Systems and Security Management, UM

Tab 21 - New Academic Program Proposal: B.S. Industrial Engineering, USM

Tab 22 - Awarding of Academic Degrees

October 26, 2022 Finance, Facilities & Technology Committee

Tab 23 - Lease Authorization Request, UM/UMM & USM

Tab 24 - Naming of UMaine Athletics New Softball Indoor Batting Pavilion

Tab 25 - Academy Building Exterior Restoration Increase Authorization, USM

Tab 26 - Skate Shop Lease, USM Ice Arena

**Date of the Next Meeting:** January 29-30, 2022 at the University of Maine at Augusta

*Public Meeting to conclude at approximately 12:00 pm*

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

**Executive Session** – following the public meeting, if needed

**Attachments**

Proposed Change to Board of Trustees Policy, Section 103 *Bylaws*

NECHE Exit Report Summary

Analyst Next Step – Burning Glass Tool

Managed Investment Pool Flash Reports  
Pension Fund Flash Reports  
Operating Fund Flash Reports  
FY2023 Revised Budgets – Campus Information  
FY2023 Revised Budgets - Consolidated  
UMF ESPC Resolution  
UMF ESPC Summary of Work  
Proposed Changes to Board of Trustees Policy 401 *General Equal Opportunity*  
Proposed New Board of Trustees Policy 315 *Naming and Renaming of Academic Units & Programs*  
Proposed Changes to Board of Trustees Policy 803 *Naming and Renaming of Physical Facilities*  
Proposed Change to Board of Trustee Policy 301.3 *USM New Mission Statement*  
Tenure Request Professor, College of Education and Human Development, UM - Background (*Confidential*)  
Tenure Request Professor, College of Engineering, UM – Background (*Confidential*)  
Tenure Request Professor, Department of Counselor Education, USM – Background (*Confidential*)  
BS in Business Administration, Business Information Systems & Security Management, UM – Background  
BS in Industrial Engineering, USM – Background  
USM Academy Building – Background Information  
Maine Economy Overview Burning Glass Report  
Program Development & Review Burning Glass Report

### **Reports**

[UMS Interactive Dashboard](#)  
[Agenda Calendar](#)  
Capital & Bond Project Report Executive Summary  
Capital Project Status Report  
Capital Project Status Report – Bond Report  
Academic & Student Affairs Committee Work Plan – Revised October 2022  
Audit Committee Work Plan  
Academic Year Calendar 2027-2028  
Academic Year Calendar 2028-2029  
Management Group Appointments Report  
Boards of Visitors Annual Reports

### **Presentations**

UMF Campus Presentation  
VCRI Report Presentation  
UMS TRANSFORMS Presentation  
Repaving MaineStreet 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.



University of Maine System Board of Trustees  
**Board Meeting Participant Instructions**

**Date: November 13-14, 2022**

**Location: University of Maine at Farmington**

**Parking**

Parking is available in the High Street Parking Lot, behind the Olsen Student Center.

**Hotel**

Overnight accommodations for those that requested, have been made at the Comfort Inn & Suites, 1026 US-2, Wilton, ME 04294. Phone: 207-645-5155

**Dinner Invitation**

A reception and dinner are scheduled for the evening of November 13<sup>th</sup>, at the UMF Emery Arts Center. Individuals invited to the reception and dinner have been notified and include: Trustees, Faculty & Student Representatives to the Board, Chancellor Malloy, Vice Chancellors, Associate Vice Chancellors, Presidents, the UMS Vice President for Finance & Controller, and the Chief Human Resources Officer.

**Board of Trustees Meeting Location & Times**

Please refer to the agenda for all information concerning locations and timing of the Board of Trustees meeting.

**Faculty & Student Representative Meetings**

The following rooms have been held on Sunday, November 13<sup>th</sup> starting at 1:00 pm for the Faculty & Student Representatives to meet in their respective groups:

Faculty - Dean's Conference Center, Education Center

Students - RM 343, Education Center

**Emergency Contact**

In the event of a postponement, cancellation, or changes to the Board of Trustees meeting, every effort will be made to personally contact the Board of Trustees, the Presidents, System Staff Members and the Faculty and Student Representatives to the Board.

Incoming messages can be left with Heather Massey at 991-4724 or Ellen Doughty at 949-4905.



## UMF DIRECTIONS

The University of Maine at Farmington campus is located on Main Street in downtown Farmington — near Routes 2, 4, and 27. UMF is near world-class ski resorts Sugarloaf and Sunday River. In fact, if you've skied Sugarloaf you've probably driven right through our campus.

**If using GPS, navigate to:**

246 Main Street Farmington, ME 04938

That address will provide you the most accurate route.

**From the SOUTH**

Take the Maine Turnpike (U.S. Route 95) North to Exit 75 at Auburn.

(Look for the huge green sign on the Turnpike.)

Then follow Route 4 North to Farmington.

Or, take the Maine Turnpike (U.S. Route 95) North to Exit 112B in Augusta.

Then follow Route 27 North to Farmington.

**From the WEST**

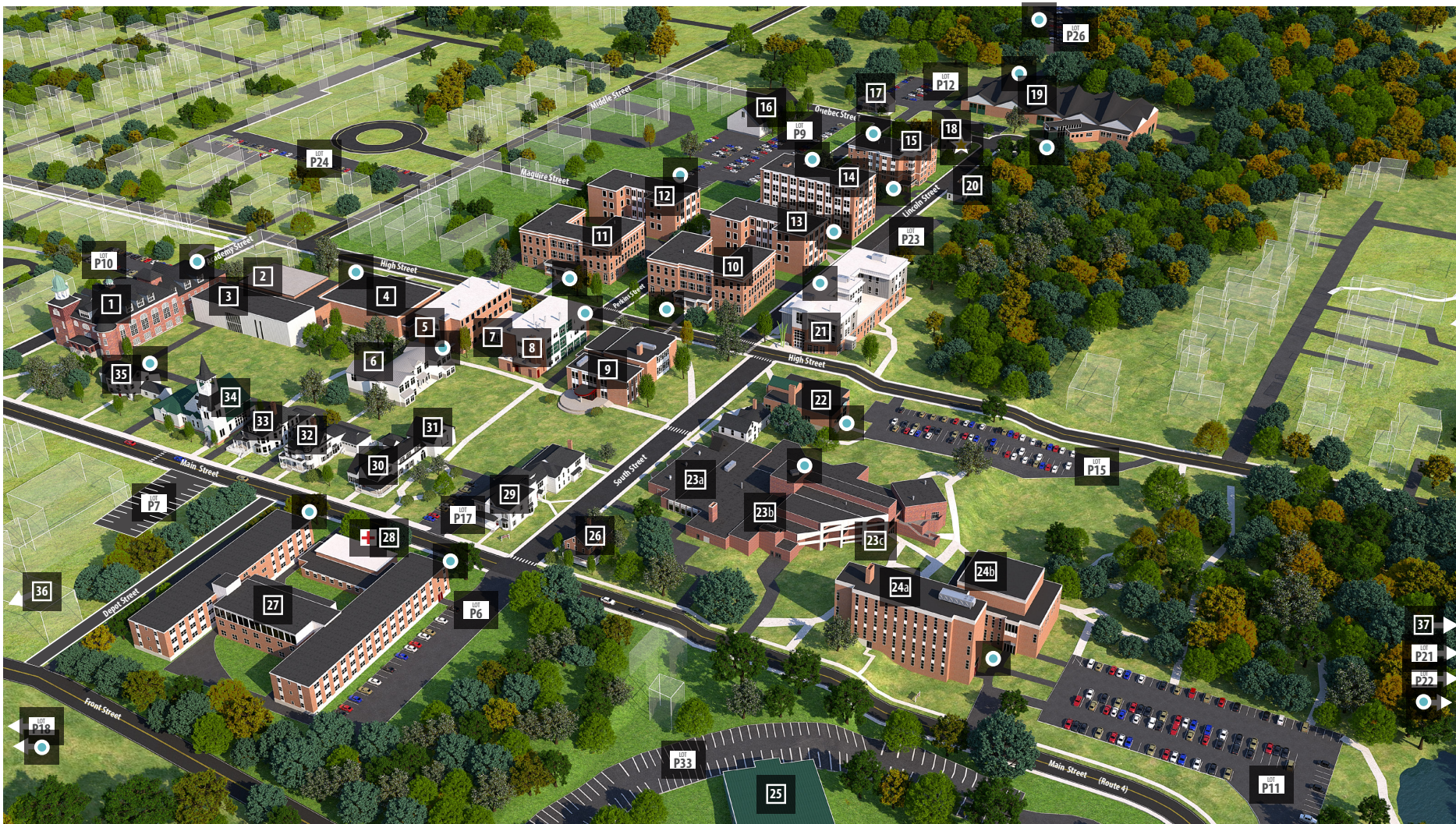
Just follow U.S. Route 2 East to Farmington.

**From the NORTH and EAST**

Take the Maine Turnpike (U.S. Route 95) to Exit 157 Palmyra / Newport.

Then follow U.S. Route 2 West to Farmington.





## CAMPUS MAP





University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** UMF Campus Presentation

**INITIATED BY:** Patricia A. Riley, Chair

**BOARD INFORMATION:** X

**BOARD ACTION:**

**BOARD POLICY:**

N/A

**UNIFIED ACCREDITATION CONNECTION:**

Introduction of programs, campus enrollments, and collaborations across UMS institutions, plus key marketing strategies to amplify UMF and the UMS.

**BACKGROUND:**

The Board last visited Farmington in 2019 before the pandemic, the university's budget crisis, and the faculty retrenchments. Our November visit provides an opportunity to hear from faculty, staff, students, and administrators and to learn the steps the campus is taking to address its enrollment and budgetary challenges. It will also provide an opportunity to learn of the collaborations taking place with UMF and the other UMS universities.

The university's interim president Dr. Joseph McDonnell will provide an overview of UMF's distinctive features, the initiatives underway to reduce costs and increase enrollment, and the challenges and opportunities ahead for the university.

The UMF faculty and student representatives to the Board will then lead a discussion with faculty, staff and students who will give the Trustees a more granular view of the university's strengths and culture and provide specific examples of faculty and staff led initiatives that address the budgetary and enrollment challenges of the university.

Attachment:

[UMF Campus PowerPoint Presentation](#)

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University of Maine System  
Board of Trustees

## **AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Proposed Change to Board of Trustee Policy  
Section 103 Board of Trustees: *Bylaws*

**INITIATED BY:** Patricia A. Riley, Chair

**BOARD INFORMATION:** X

**BOARD ACTION:**

**BOARD POLICY:** Bylaws

**UNIFIED ACCREDITATION CONNECTION:**

N/A

**BACKGROUND:**

The Board of Trustees is proposing a change to Board of Trustees Policy 103 *Bylaws* to include a provision to have a member of the Faculty Representatives to the Board of Trustees to join the Board table for each regularly scheduled Board meeting. The Faculty Representative will be a non-voting participant and will not be included in executive sessions.

The proposed change has been reviewed by System staff, the Faculty Representatives to the Board and the Faculty Governance Council.

This provision has been added to Article IV, Section 4.9 of the Bylaws. A red-lined copy of the Bylaws is included in the meeting materials. This Bylaw change is being presented as an information item for the November Board of Trustees meeting and following feedback received, will be presented as an action item for the January 2023 Board meeting.

Attachment:

[Board of Trustees Policy, Section 103 Bylaws \(with proposed change\)](#)

11/03/2022

## **AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Unified Accreditation and Unified Catalog Update

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:** X

**BOARD ACTION:**

**BOARD POLICY:**

**UNIFIED ACCREDITATION CONNECTION:**

Board engagement/transparency

**BACKGROUND:**

Associate Vice Chancellor for Accreditation and Strategic Initiatives Jeff St. John will share two updates:

1) Short report on the NECHE evaluation visit:

- summary of areas of strength and areas of concern identified by the team
- next steps in the overall evaluation process and projected timeline.

2) Unified Catalog work:

- completion of a faculty one-stop web resource for multi-university academic programs and courses (September 2022)
- completion of draft content and draft workflow for online international and domestic "study away" forms (November 2022)
- creation of a standard MOU template for multi-university academic programs and courses (in process)
- formation of small Working Group and identification of next projects (ongoing).

Attachment:

[NECHE Exit Report Summary](#)

11/03/2022

University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Academic Affairs Update

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:** X

**BOARD ACTION:**

**BOARD POLICY:**

**UNIFIED ACCREDITATION CONNECTION:**

N/A

**BACKGROUND:**

Vice Chancellor for Academic Affairs Robert Placido will provide an update on Fall enrollment. Overall, Fall student enrollment at the census on October 15th was down 5% compared to last year. Graduate student enrollment was down 2.9%. Enrollment among Canadian students is growing, with 2022 up 20% over last year. Similarly, enrollment in online programs supported through Academic Partnerships is up 25% over last year.

Vice Chancellor Placido will give an overview of the capabilities of the Burning Glass software and demonstrate how it is used to guide new program development.

Attachment:

[Maine Economy Overview Burning Glass Report](#)  
[Program Development & Review Burning Glass Report](#)  
[Analyst next steps - Burning Glass Tool](#)

Revised - 11/8/2022

University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

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**NAME OF ITEM:** Vice Chancellor for Research and Innovation Update

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:** X

**BOARD ACTION:**

**BOARD POLICY:**

**UNIFIED ACCREDITATION CONNECTION:**

Unified accreditation requires that the University of Maine System demonstrate that it has addressed all of the NECHE standards. One of these, standard 7, describes expectations for teaching, learning and scholarship:

The institution supports teaching and learning through a well-qualified faculty and academic staff, who, in structures and processes appropriate to the institution, collectively ensure the quality of instruction and support for student learning. Scholarship, research, and creative activities receive support appropriate to the institution's mission. The institution's faculty has primary responsibility for advancing the institution's academic purposes through teaching, learning, and scholarship.

System-wide focus on research and innovation can support achievement of this standard. Additionally, such a focus helps advance the recommendations of the [University of Maine System Research and Development Plan FY20 – FY24](#).

**BACKGROUND:**

Joan Ferrini-Mundy, UMS Vice Chancellor for Research and Innovation, will provide an update at the November 14, 2022 Board of Trustees meeting.

Presentation:

[VCRI Report Presentation](#)

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University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Vice Chancellor for Strategic Initiatives (VCSI) Update

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:** X

**BOARD ACTION:**

**BOARD POLICY:**

301 Mission and Strategic Plan Policy

**UNIFIED ACCREDITATION CONNECTION:**

To prepare and adopt a strategic plan by which the University of Maine System, acting through its universities and the University of Maine School of Law, will take full advantage of Unified Accreditation to achieve the UMS tripartite mission of teaching, research, and public service for the benefit of all UMS students and the State of Maine, with national and global impact as well.

**BACKGROUND:**

The Vice Chancellor for Strategic Initiatives (VCSI) update at the November 2022 Board of Trustees meeting has the following item.

The Board's July 26, 2021 UMS Strategic Planning Resolution charged Chancellor Dannel Malloy to begin the work necessary to prepare a 5-year strategic plan for UMS. The Board was presented an initial timeline and plan for the work at the September 2021 meeting. They were updated on the project status, including the System's work to identify a strategic planning consultant that will help UMS undertake the work to develop the plan in November 2021, and have received regular updates over the past year. Vice Chancellor Dorsey and Trustee Cain (Chair, Strategic Planning Committee) will update the Board on the ongoing work and timeline for plan completion.

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University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** UMS TRANSFORMS Update

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:** X

**BOARD ACTION:**

**BOARD POLICY:**

301 Mission and Strategic Plan Policy

**UNIFIED ACCREDITATION CONNECTION:**

UMS TRANSFORMS, made possible by the historic \$240 million investment in the University of Maine System by the Harold Alfond Foundation, provides new opportunities for student support, faculty development, and innovative collaborative degree programs to advance Maine's economy and workforce in partnership with the public and private sectors. These collaborative and strategic occasions are examples of the essential tenets of the eight principles that guide our unified accreditation work.

**BACKGROUND:**

Chancellor Dannel Malloy, Vice Chancellor for Strategic Initiatives Carolyn Dorsey and Vice Chancellor for Research and Innovation & UM President Joan Ferrini-Mundy will provide an update on the UMS TRANSFORMS initiatives at the November 13-14, 2022 Board of Trustees meeting.

Attachment:

[UMS TRANSFORMS Presentation](#)

[UMS TRANSFORMS Website](#)

University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Vice Chancellor for Finance and Administration Update

**INITIATED BY:** Dannel P. Malloy, Chair

**BOARD INFORMATION: X**

**BOARD ACTION:**

**BOARD POLICY:**

Policy 701 – [Operating & Capital Budgets](#)

**UNIFIED ACCREDITATION CONNECTION:**

**BACKGROUND:**

Vice Chancellor Low will provide 2 brief updates:

- 1) Flash Reports – Investment Update
- 2) Repaving MaineStreet Update by David Demers, Chief Information Officer

Attachments & Presentations

[Managed Investment Pool Flash Reports](#)

[Pension Fund Flash Reports](#)

[Operating Fund Flash Reports](#)

[Repaving MaineStreet Presentation](#)

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University of Maine System  
Board of Trustees

## AGENDA ITEM SUMMARY

**NAME OF ITEM:** FY2023 Proposed Operating Budget Revisions

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:**

**BOARD ACTION:** X

**BOARD POLICY:**

Policy 701 – [Operating & Capital Budgets](#)

**UNIFIED ACCREDITATION CONNECTION:**

N/A

**BACKGROUND:**

The FY2023 budgets have been revised by four (4) of the universities and those revised detailed budgets are included in the attached materials.

Vice Chancellor for Finance and Administration & Treasurer Ryan Low, along with the universities, will briefly present the FY2023 proposed operating budget revisions. Most changes reflect enrollment, residence hall occupancy and general operating expenses. Below is a comparison of the FY23 original vs. revised budgets for annual credit hours and residence hall occupancy for all universities as well as the revised operating budgets for four (4) of the universities.

The Finance, Facilities and Technology Committee approved this item to be forwarded to the November 13-14, 2022 Board of Trustees meeting, for approval of the following resolution:

**TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees accepts the recommendation of the Finance, Facilities and Technology Committee, and approves the FY2023 proposed operating budget revisions for UMA, UMF, UMPI and USM.

### CREDIT HOUR ENROLLMENT (excl. Early College)

	In-State		Out-of-State		AP		Total		Change	
	Original	Revised	Original	Revised	Original	Revised	Original	Revised	#	%
UMAINE	167,569	162,455	115,509	104,191	-	-	283,078	266,646	(16,432)	-5.8%
UMM	8,499	6,473	2,634	3,100	-	-	11,133	9,573	(1,560)	-14.0%
UMA	60,564	56,628	8,095	7,137	-	-	68,659	63,765	(4,894)	-7.1%
UMF	33,542	34,136	8,497	7,175	-	-	42,039	41,311	(728)	-1.7%
UMFK	6,346	6,132	6,601	4,507	5,637	4,070	18,584	14,709	(3,875)	-20.9%
UMPI	12,751	12,209	4,033	4,211	15,201	15,194	31,985	31,613	(372)	-1.2%
USM	118,645	112,406	27,931	25,282	6,657	5,311	153,233	142,999	(10,234)	-6.7%
LAW	5,850	5,818	2,006	1,967	-	-	7,856	7,785	(71)	-0.9%
TOTAL	413,766	396,257	175,306	157,570	27,495	24,575	616,567	578,401	(38,166)	-6.2%

### EARLY COLLEGE ENROLLMENT

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	Early College		Change	
	Original	Revised	#	%
UMAINE	3,559	4,291	732	20.6%
UMM	2,218	2,389	171	7.7%
UMA	6,900	7,184	284	4.1%
UMF	705	1,671	966	137.0%
UMFK	3,766	3,172	(594)	-15.8%
UMPI	4,032	5,334	1,302	32.3%
USM	6,045	6,920	875	14.5%
TOTAL	27,225	30,961	3,736	13.7%

**RESIDENCE HALL OCCUPANCY**

	Original	Revised	Change	
			#	%
UMAINE	3,404	3,175	(229)	-6.7%
UMM	125	103	(22)	-17.6%
UMA	77	77	-	0.0%
UMF	895	719	(176)	-19.7%
UMFK	136	98	(38)	-27.9%
UMPI	175	175	-	0.0%
USM	1,121	1,271	150	13.4%
TOTAL	5,933	5,618	(315)	-5.3%

**OPERATING BUDGETS**

	Original Budget			Revised Budget			Net Change	Campus Reserves
	E&G	Auxiliary	Total	E&G	Auxiliary	Total		
UMA	\$ 341,634	\$ (341,634)	\$ -	\$ (725,131)	\$ (341,634)	\$ (1,066,765)	\$ (1,066,765)	✓
UMFK	(287,060)	(650,940)	(938,000)	(190,013)	(747,987)	(938,000)	-	
UMPI	(1,912,211)	(545,995)	(2,458,206)	(1,855,211)	(602,995)	(2,458,206)	-	
USM	486,441	(486,441)	-	(1,188,554)	213,559	(974,995)	(974,995)	✓
TOTAL			\$ (3,396,206)			\$ (5,437,966)	\$ (2,041,760)	

Attachments:

[FY2023 Revised Budgets – Campus Information](#)[FY2023 Revised Budgets - Consolidated](#)

11/3/2022

University of Maine System Board of  
Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Energy Savings Performance Contract (ESPC) & Financing Authorization, UMF

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:**

**BOARD ACTION: X BOARD**

**POLICY:**

701 – Budgets, Operating & Capital 712 – Debt  
Policy

**UNIFIED ACCREDITATION CONNECTION:**

N/A

**BACKGROUND:**

**a. Summary of the request:**

The University of Maine System, acting through the University of Maine at Farmington (UMF), requests authorization to enter a public-private partnership to pursue an Energy Savings Performance Contract (ESPC) to save energy, reduce energy and operational costs, reduce carbon emissions, and improve the learning environment for students on the UMF campus in a manner that is structured as cost neutral.

This item is pursuant to Board policy 701 which requires Board approval for projects with a value of \$500,000 or greater. Also, Board Policy 712 applies as it speaks to debt and related agreements.

Finally, this agenda item is to inform the Board that The University of Maine System is utilizing the University of Maine System 2020 Master Contract for Energy Savings Performance Contract (ESPC) for this project. This Master Contract resulted from a competitively bid RFP in 2019 whereby Trane was selected as the University's Energy Service Company (ESCO). The contract includes multi-institutional language, allowing all University Campuses the ability to participate as appropriate.

**b. Overall requested budget and funding source:**

The project total is expected to be up to \$11.7 million, with \$11 million funded through a taxable or tax-exempt lease, or combination thereof, with Banc of America Public Capital Corp (BAPCC) that will be repaid from savings achieved by the implementation of Energy Conservation Measures (ECMs) with any residual amount funded by UMF.

**c. Confirmation of whether the project was included or reflected in the Master Plan, Long Term capital plan or 1-year capital plan most recently approved by Trustees.**

This project keeps with the University's master plan, which calls for a partnership with an ESCO as one of the primary mechanisms for addressing capital infrastructure improvements in existing buildings that are not planned for demolition. Once approved and construction is

completed, this project will generate ~\$12 million in energy savings over the 20-year contract period, an additional ~\$4 million in thermal Renewable Energy Credit (REC) revenue, reduce overall campus building energy intensity, improve campus building operations and the learning environment, and

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help to reach the University's carbon reduction goals and overall sustainability commitments. This project frees up campus capital funds for investments in other needed areas.

**d. More detailed explanation of rationale for project and metrics for success of the project (ROI or other):**

The ESCO for this project (Trane) has conducted an Investment Grade Audit (IGA) on the UMF campus buildings to identify ECMs to reduce operational costs at the campus. Trane has done detailed analysis over the past 12 months to provide UMF a comprehensive package of ECMs at a fixed-firm price with guaranteed energy savings that are cashflow neutral. Trane has submitted IGA documents, which are the basis for eventually entering into an Energy Savings Agreement (ESA) to build the project.

A specialized consultant and Subject Matter Expert (SME), NV5, has been hired as a 3<sup>rd</sup> Party Owner's Representative (OR) working on the UMF team. Over the past year, NV5 has assisted in determining the feasibility, potential scope and potential costs of an ESPC. Currently, NV5 has been providing expertise in facilitating and reviewing all project documents, contracts, ECM scope, savings calculations, Measurement & Verification (M&V) plans, project cost build-ups, and related matters, and is providing overall Quality Assurance and Oversight over UMF's ESCO, Trane (these activities are still on-going). The OR has collaborated with key players from UMF's Facilities Management office, the Office of Sustainability, faculty, administration, and others.

Based on this work and the final IGA report, the University is now seeking to execute and implement an ESPC at the UMF campus. This would involve completing a final investment grade audit phase (with final report submittal), executing an ESA, and implementing a package of ECMs at the campus buildings. This also involves measurement & monitoring of ECM performance over the contract period (20 years) as well as monitoring-based commissioning at the buildings included in the ESPC project scope. The project is expected to include the University, Trane, NV5 and the financier all working in collaboration.

**e. Explanation of the scope and substance of the project as needed to supplement (a) and (d) above.**

The planned ECM scope will focus on 30+ buildings on campus totaling approximately 770,000 square feet. A summary of the proposed ECMs outlined in Attachment A include upgrades to interior and exterior lighting systems, building envelope improvements, HVAC duct and piping insulation, upgrading to efficient water fixtures, replacement of aging or end-of-life HVAC equipment, upgrading Building Automation Systems (BAS) / Energy Management Control Systems (EMCS), and installing a second biomass boiler on campus to mitigate or eliminate the use of propane and fuel oil. There will also be a software platform installed and linked to the building BAS/EMCS to provide detailed building analytics and on-going system commissioning to continuously monitor and improve building system operational performance.

**f. Changes, if any, in net square footage or ongoing operating costs resulting from the project:**

There will be no changes to net square footage of campus buildings as a result of this project.

**g. Budget for the project and further elaboration on funding source and selection as needed to supplement (b) above):**

The University has been working with BAPCC to provide the financing for this project. In August, BAPCC offered the University an attractive financing rate based on then-current financial market

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conditions with a rate lock through November 28, 2022. UMF accepted the rate lock, with no penalty, to allow time for Board of Trustee review and approval. This financing would use UMS's previously executed Energy Equipment Addendum, to its Master Equipment Lease/Purchase (MELP) Agreement with BAPCC. Such agreement is pursuant to the negotiated contract terms resulting from Request for Proposal (RFP) #069-2017.

**h. Alternatives that were considered to meet the need being addressed by this project:**

An alternative financing mechanism like ESPC was considered for the implementation of the ECMs identified in this project due to lack of availability for traditional funding sources for large capital/infrastructure upgrade projects.

**i. Timeline for start, occupancy and completion:**

A successful project will see ECM implementation over the next 15-18 months (estimated construction phase start date of December 2022). The first full year of performance is expected to start in Fall 2024.

**j. Timeline for any further consideration or action anticipated to be needed by the Board or its committees regarding this project if full authority is not being requested from the outset.**

The University is seeking board approval in November of 2022 to execute an ESA with Trane so the implementation phase can begin immediately. Due to sub-contractor pricing variability and long lead times for equipment, it is in the best interest of the University to execute a contract by December 1, 2022 in order to secure fixed-firm labor and material pricing.

**k. Additional information that may be useful to consideration of the item.**

This item was presented to the Facilities, Finance and Technology Committee as an informational item at its August 24, 2022 meeting.

The UMF campus buildings proposed in the ESPC scope of work are facilities that warrant substantial restoration and investment. This project aims to provide renewal of campus building NAV through implementation of the ECMs proposed in this project. Currently, the buildings in the proposed ESPC scope of work have an average Sightlines renovation age of 40 years. The campus' Net Asset Value (NAV) is currently 56%. This data is indicative of facilities that warrant substantial restoration and investments (the projects pick us). The planned ECM scope will focus on 30+ campus buildings totaling approximately 770,000 square feet and when done, UMF's NAV index is expected to visibly increase.

The average baseline energy consumption over a historical 3-year period at these buildings is approximately 80,084 MMBTUs. The 2023 fiscal year utility budget is \$1.28 million. The projected year 1 savings after implementation of the proposed ECMs is approximately \$400,000. This represents a 30% reduction in annual utility consumption and cost. In addition to this utility cost savings, the installation of a second biomass boiler will allow the

University to capture thermal RECs, which will generate an additional revenue stream for UMF. The total value of these RECs over the proposed 20-year contract term is estimated to be upwards of \$4 million.

Through this ESPC, the University's ESCO, Trane, will provide a fixed-firm project price and will guarantee the savings every year during the contract term. It is required by contract that, for every year of the contract term, annual guaranteed savings each year must exceed annual financing payments for such year. At the end of each performance year, Trane is required by contract to provide

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M&V reporting proving to the University that the guaranteed savings have been achieved. If a shortfall exists, Trane is obligated by contract to cover the savings shortfall. UMF's 3<sup>rd</sup> Party OR, NV5, will be reviewing these M&V reports every year of the contract term to verify that the reported project savings are accurate.

The Finance, Facilities and Technology Committee approved this item to be forwarded to the November 13-14, 2022 Board of Trustees meeting, for approval of the following resolution:

**TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees accepts the recommendation of the Finance, Facilities and Technology Committee, and approves the Financing, ESPC and Project Authorization resolution to authorize the University of Maine System acting through the University of Maine at Farmington to fund an ESPC project implementing Energy Conservation Measures related to 30+ campus buildings with a project total of up to \$11.7 million, using the BAPCC Master Equipment Lease/Purchase Agreement Energy Addendum, with a maximum principal amount of debt of \$11,000,000.

Attachments:

[Finance, ESPC and Project Authorization Resolution](#)

[Attachment A Summary of Work](#)



University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Approval of Proposed Changes to Board of Trustee Policy 401 *General Equal Opportunity*

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:**

**BOARD ACTION:** X

**BOARD POLICY:**

Board Policy 401

**UNIFIED ACCREDITATION CONNECTION:**

N/A

**BACKGROUND:**

Board of Trustee Policy 401 *General Equal Opportunity* is being changed to include protected classes outlined in Federal and State law and the American Bar Association standards. These changes will provide alignment and clarity for the UMS community. Additionally, these changes support the Chancellor's *Imperative for Change* initiative in that it supports the goal to "rebuild systems that are fair and just for all people."

The proposed changes are noted in red text in the current version of Board Policy 401, which is attached.

The revised Policy was presented as an information item at the August 22<sup>nd</sup> Human Resources and Labor Relations (HR/LR) Committee before being presented to the full Board, as an information item, at the September 11-12, 2022, meeting. The proposed revisions to the Policy were presented at the October 24, 2022, HR/LR Committee meeting.

The Human Resources and Labor Relations Committee agreed to forward this item to the November 13-14, 2022 Board of Trustees meeting for approval of the following resolution:

**RESOLUTION:**

That the Board of Trustees accepts the recommendation of the Human Resources and Labor Relations Committee and approves the proposed changes to Board Policy 401- General Equal Employment Opportunity as presented.

Attachment:

[Proposed Changes to Board of Trustee Policy 401 \*General Equal Opportunity\*](#)

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University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Proposed New Board of Trustee Policy 315 *Commemorative Naming and Renaming of Academic Units and Programs*

**INITIATED BY:** Patricia A. Riley, Chair

**BOARD INFORMATION:**

**BOARD ACTION:** X

**BOARD POLICY:**

**UNIFIED ACCREDITATION CONNECTION:**

This new Board policy will provide clarity for naming and renaming of academic units and programs for consistency among all campuses.

**BACKGROUND:**

At the request of former Board Chair Mark Gardner, a small work group was established to develop a new Board Policy related to naming and remaining of academic units and programs. The working group was led by Board Clerk Ellen Dougherty. Other members of the working group were Assistant Board Clerk Heather Massey, President and CEO of the USM Foundation Ainsley Wallace, Associate Vice Chancellor for Academic Affairs Carolyn Dorsey, UMS Director of Capital Planning and Project Management Carolyn McDonough.

The proposed new Board Policy 315 *Naming and Renaming of Academic Units and Programs* was based on Board Policy 803 *Naming of Physical Facilities* which was revised in March 2021. The working group solicited broad stakeholder input from the following areas: campus Chief Academic Officers, Faculty Representatives to the Board of Trustees, Faculty Governance Council and UMS General Counsel's office.

In August, the proposed Board Policy was reviewed by the Academic & Student Affairs (ASA) Committee and by the full Board at its September Board meeting. At its October 24, 2022 meeting, the ASA Committee approved this recommendation and agreed to forwarded it to the Board of Trustee for approval at the November 13-14, 2022 Board meeting.

**TEXT OF THE PROPOSED RESOLUTION:**

That the Board of Trustees accepts the recommendation of the Academic & Student Affairs Committee and approves the proposed new Board of Trustees Policy 315 *Naming and Renaming of Academic Units and Programs* as presented.

Attachment:

[Proposed New Board of Trustee Policy 315 - \*Naming and Renaming of Academic Units and Programs\*](#)

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University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Proposed Changes to Board of Trustee Policy 803 *Naming and Renaming of Physical Facilities*

**INITIATED BY:** Patricia A. Riley Chair

**BOARD INFORMATION:**

**BOARD ACTION:** X

**BOARD POLICY:**

**UNIFIED ACCREDITATION CONNECTION:**

The proposed changes to this Board policy will provide clarity for naming and renaming of physical facilities for consistency among all campuses.

**BACKGROUND:**

In March 2021 substantial changes were made to the Board of Trustee Policy 803 *Naming and Renaming of Physical Facilities* to incorporate the process for removal of names.

This Board Policy is now being revised to align with the naming and renaming approval process for the new Board Policy 315 *Commemorative Naming or Renaming of Academic Units or Programs*, which will be presented for approval by the Academic & Student Affairs Committee at their October meeting. The most significant change for Board Policy 803 is to incorporate the Vice Chancellor for Finance and Administration in the naming and renaming approval process.

In August, the proposed changes to the Policy were reviewed by Finance, Facilities & Technology (FFT) Committee and by the full Board at its September meeting. At its October 26, 2022 meeting, the FFT Committee approved this recommendation and agreed to forward it to the Board of Trustee for approval at the November 13-14, 2022 Board meeting.

**TEXT OF THE PROPOSED RESOLUTION:**

That the Board of Trustees accepts the recommendation of the Finance, Facilities and Technology Committee and approves the proposed changes to Board of Trustees Policy 803 *Naming and Renaming of Physical Facilities* as presented.

Attachment:

[Proposed Changes to Board of Trustee Policy 803 \*Naming and Renaming of Physical Facilities\*](#)

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University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Proposed Changes to Board of Trustee Policy 301.3 – *University of Southern Maine Mission*

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:**

**BOARD ACTION: X**

**BOARD POLICY:**

Board Policy 301.3: University of Southern Maine Mission

**UNIFIED ACCREDITATION CONNECTION:**

N/A

**BACKGROUND:**

The University of Southern Maine proposes to update its current mission statement:

“The University of Southern Maine, northern New England’s outstanding public, regional, comprehensive university, is dedicated to providing students with a high quality, accessible, affordable education. Through its undergraduate, graduate and professional programs, USM faculty members educate future leaders in the liberal arts and sciences, engineering and technology, health and social services, education, business, law and public service. Distinguished for their teaching, research, scholarly publication and creative activity, the faculty are committed to fostering a spirit of critical inquiry and civic participation. USM embraces academic freedom for students, faculty, and staff, and advocates diversity in all aspects of its campus life and academic work. It supports sustainable development, environmental stewardship, and community involvement. As a center for discovery, scholarship and creativity, USM provides resources for the state, the nation, and the world.”

The proposed new mission statement is:

“Committed to equity and excellence, the University of Southern Maine advances a culture of inquiry and belonging in which research, creativity, and innovation accelerate transformational development in our students, on our campuses, and in our communities.”

The proposal was reviewed at the all appropriate faculty and administrative levels at USM. Chancellor Malloy signed his approval of the proposed University of Southern Maine mission on July 27, 2022. This item was presented at the August Academic and Student Affairs (ASA) Committee meeting and the September Board of Trustees meeting as an information item and it is being presented at the October ASA Committee meeting and November Board meeting for approval.

The Academic and Student Affairs Committee agreed to forward this item to the November 13-14, 2022 Board of Trustees meeting for approval.

**TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees accepts the recommendation of the Academic & Student Affairs Committee and approves the changes to Board Policy 301.3 - USM Mission, as presented.

Attachment:

Proposed Changes to Board of Trustee Policy 301.3 *University of Southern Maine Mission*

University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Confirmation of Faculty & Student Representatives to the Board of Trustees

**INITIATED BY:** Patricia A. Riley, Chair

**BOARD INFORMATION:**

**BOARD ACTION:** X

**BOARD POLICY:**

Policy 205 – Faculty & Student Representatives to the Board of Trustees

**UNIFIED ACCREDITATION CONNECTION:**

N/A

**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, one graduate student from the University of Maine, and one graduate student from the Maine Law School 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 or Dean of the Law School to the Chancellor for submission to the Board for Trustee approval.

The following nominations are being recommended by the campus:

Faculty Representative:

Dmitry Bam, Maine School of Law – Reappointed for a 2- year term – November 2022 to November 2024

Student Representative:

Jessica Combs, UMFk – Appointed for a 1-year term – November 2022 to November 2023

**TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees approves the appointments of the Faculty and Student Representatives to the Board of Trustees as presented.

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University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Tenure Request, Professor in the College of Education and Human Development, UM

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:** **BOARD ACTION:** X

**BOARD POLICY:**

Board Policy 310: Tenure

**UNIFIED ACCREDITATION CONNECTION:**

N/A

**BACKGROUND:**

The University of Maine has requested that Dr. Ezekiel Kimball be awarded tenure at the rank of Professor in the School of Educational Leadership, Higher Education, and Human Development, UM, effective July 1, 2022. This appointment coincides with Dr. Kimball's appointment as Associate Dean for Undergraduate and Teacher Education in the College of Education and Human Development at the University of Maine. Dr. Kimball was selected after an extensive search and rigorous evaluation process. Dr. Kimball's credentials have been reviewed by the faculty and staff of the School of Educational Leadership, Higher Education, and Human Development and have received their full support.

The Academic and Student Affairs Committee agreed to forward this item to the November 13-14, 2022 Board of Trustees meeting for approval of the following resolution:

**TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees accepts the recommendation of the Academic & Student Affairs Committee and approves tenure at time of hire, Professor in the College of Education and Human Development at UM with tenure to be effective July 1, 2022.

Attachment:

[Tenure Request Professor, College of Education and Human Development, UM - Background \(Confidential\)](#)

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University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Tenure Request, Professor in the College of Engineering, UM

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:**

**BOARD ACTION:** X

**BOARD POLICY:**

Board Policy 310: Tenure

**UNIFIED ACCREDITATION CONNECTION:**

N/A

**BACKGROUND:**

The University of Maine has requested that Dr. Giovanni Guidoboni be awarded tenure at the rank of Professor in the department of Electrical and Computer Engineering, effective January 16, 2023. Dr. Guidoboni was selected after an extensive search and rigorous evaluation process. Dr. Guidoboni's credentials have been reviewed by the faculty and staff of the Department of Electrical and Computer Engineering and have received their full support.

The Academic and Student Affairs Committee agreed to forward this item to the November 13-14, 2022 Board of Trustees meeting for approval of the following resolution:

**TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees accepts the recommendation of the Academic & Student Affairs Committee and approves tenure at time of hire, Professor in the College of Engineering at UM with tenure to be effective January 16, 2023.

Attachment:

[Tenure Request Professor, College of Engineering, UM - Background](#) (*Confidential*)

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University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Tenure Request, Professor in the Department of Counselor Education, USM

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:**

**BOARD ACTION:** X

**BOARD POLICY:**

Board Policy 310: Tenure

**UNIFIED ACCREDITATION CONNECTION:**

N/A

**BACKGROUND:**

The University of Southern Maine has requested that Dr. Daniel Wong be awarded tenure at the rank of Professor in the Department of Counselor Education, effective January 1, 2023. Dr. Wong was selected after an extensive search and rigorous evaluation process. Dr. Wong's credentials have been reviewed by the faculty and staff of the Department of Counselor Education and have received their full support.

The Academic and Student Affairs Committee agreed to forward this item to the November 13-14, 2022 Board of Trustees meeting for approval of the following resolution:

**TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees accepts the recommendation of the Academic & Student Affairs Committee and approves tenure at time of hire, Professor in the Department of Counselor Education at USM with tenure to be effective January 1, 2023.

Attachment:

[Tenure Request Professor, Department of Counselor Education, USM – Background](#) (*Confidential*)

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University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Acceptance of Minutes

**INITIATED BY:** Patricia A. Riley, Chair

**BOARD INFORMATION:**

**BOARD ACTION:** X

**BOARD POLICY:**

N/A

**UNIFIED ACCREDITATION CONNECTION:**

N/A

**BACKGROUND:**

The following minutes will be presented to the Board of Trustees for approval at the November 13-14, 2022 Board meeting:

August 24, 2022 – Finance, Facilities & Technology Committee Meeting

August 25, 2022 – Investment Committee Meeting

August 29, 2022 – Strategic Planning Committee Meeting

September 11-12, 2022 – Board of Trustees Meeting

October 5, 2022 – Executive Committee Meeting

October 13, 2022 – Executive Committee Meeting

October 24, 2022 – Academic & Student Affairs Committee Meeting

October 24, 2022 – Human Resources & Labor Relations Committee Meeting

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

**TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees approves the minutes as presented.

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University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** New Academic Program Proposal: B.S. Business Administration, Business Information Systems and Security Management, UM

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:**

**BOARD ACTION:** X

**BOARD POLICY:**

305.1 Program Approval, Review & Elimination Procedures

**UNIFIED ACCREDITATION CONNECTION:**

N/A

**BACKGROUND:**

The University of Maine (UM) is seeking permission to offer a Bachelor of Science in Business Administration, Business Information Systems and Security Management.

As described in the included proposal from UM, this undergraduate program in the Maine Business School focuses on fulfilling a growing need among Maine employers, according to Burning Glass. This data shows over 2,500 job openings in the state while higher education institutions within the state produce about 200 students in this area each year. Faculty at the Maine Business School have worked with the University of Maine at Augusta to determine course equivalencies, giving students in the UM BSBA-BISSM and the UMA BS in Cybersecurity additional coursework options at both Universities.

The proposal was reviewed at all appropriate faculty and administrative levels at UM and was reviewed and subsequently recommended by the Chief Academic Officers Council. Dr. Robert Placido, Vice Chancellor of Academic Affairs recommended the program to the Chancellor. Chancellor Malloy signed his approval of the Bachelor of Science in Business Administration - Business Information Systems and Security Management on August 18, 2022

The Academic and Student Affairs Committee agreed to forward this item to the Consent Agenda at the November 13-14, 2022 Board of Trustees meeting for approval.

**TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees accepts the recommendation of the Academic and Student Affairs Committee and approves the Bachelor of Science in Business Administration, Business Information Systems and Security Management at the University of Maine.

Attachment:

[New Academic Program Proposal – BS in Business Administration, Business Information Systems and Security Management, UM](#)

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University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** New Academic Program Proposal: B.S. Industrial Engineering, USM

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:**

**BOARD ACTION:** X

**BOARD POLICY:**

305.1 Program Approval, Review & Elimination Procedures

**UNIFIED ACCREDITATION CONNECTION:**

N/A

**BACKGROUND:**

The University of Southern Maine (USM) is seeking permission to offer a Bachelor of Science in Industrial Engineering.

As described in the included proposal from USM, this undergraduate program is designed to address demand for industrial engineering professionals within the State of Maine. We will accomplish this goal by providing an accredited educational program that will graduate future leaders in engineering, business and systems optimization that can sustain Maine's growing industrial sectors. Graduates will be able to solve complex problems in current and emerging industries of importance to Maine's economy including healthcare, manufacturing, business logics, transportation and tourism. The program will seek ABET accreditation within six years of program inception.

The proposal was reviewed at all appropriate faculty and administrative levels at UMS and was reviewed and subsequently recommended by the Chief Academic Officers Council. Dr. Robert Placido, Vice Chancellor of Academic Affairs recommended the program to the Chancellor. Chancellor Malloy signed his approval of the Bachelor of Science in Industrial Engineering on September 15, 2022.

The Academic and Student Affairs Committee agreed to forward this item to the Consent Agenda at the November 13-14, 2022 Board of Trustees meeting for approval of the following resolution:

**TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees accepts the recommendation of the Academic and Student Affairs Committee and approves the Bachelor of Science in Industrial Engineering at the University of Southern Maine.

Attachment:

[New Academic Program Proposal: BS in Industrial Engineering, USM](#)

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University of Maine System  
Board of Trustees

## AGENDA ITEM SUMMARY

**NAME OF ITEM:** Awarding of Academic Degrees

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:**

**BOARD ACTION:** X

**BOARD POLICY:**

303: Academic Degrees

**UNIFIED ACCREDITATION CONNECTION:**

None

**BACKGROUND:**

In accordance with Board of Trustee Policy 303 *Academic Degrees*, the Board approves the awarding of academic degrees.

The Academic and Student Affairs Committee agreed to forward this item to the Consent Agenda at the November 13-14, 2022 Board of Trustees meeting for approval.

**TEXT OF PROPOSED RESOLUTION**

That the Board of Trustees accepts the recommendation of the Academic & Student Affairs Committee and authorizes the awarding of degrees during Commencement ceremonies for the 2022-2023 academic year to those students fully recommended by the appropriate faculties and the presidents of the respective institutions of the University of Maine System.

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University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Lease Authorization Request, UM/UMM & USM

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:**

**BOARD ACTION:** X

**BOARD POLICY:**

801 – Acquisition of Real Property

802 – Disposition or University as Lessor of Real Property

**UNIFIED ACCREDITATION CONNECTION:**

N/A

**BACKGROUND:**

**a. Summary of the request**

The University of Maine System, acting through the University of Maine (UM) / University of Maine Machias (UMM) and the University of Southern Maine (USM) requests authorization to negotiate, enter into and extend multiple lease agreements with University Credit Union (UCU).

UM/UMM anticipates the three (3) leases combined will result in net payment to UCU of less than \$20,000 annually with terms of up to fifteen (15) years including renewals. Lease expenses will be paid from the Office of Innovation & Economic Development. USM leases will result in net revenue from UCU of approximately \$7k to \$9k +/- annually with terms of up to ten (10) years including renewals.

This request is pursuant to Board Policy 801, Acquisition of Real Property and Board Policy 802, Disposition of Real Property, both which require leases with a total value of over \$100,000 and/or with **a term greater than 5 years** to be considered by the Board of Trustees. In this case, the requirements is in regard to the duration, which for all leases is anticipated to be ten (10) to fifteen (15) years, as well as the total value in the case of the UM/UMM lease. In this case the request is for the Committee to forward the request to the Consent Agenda for Board of Trustee approval.

**b. Overall requested budget and funding source:**

To be determined with final negotiations.

**c. Confirmation of whether the project was included or reflected in the Master Plan, Long Term capital plan or 1-year capital plan most recently approved by Trustees.**

N/A

**d. More detailed explanation of rationale for project and metrics for success of the project (ROI or other):**

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UM Memorial Union (UCU as lessee):

The lease, approved by the Finance, Facilities and Technology Committee at the September 27/28, 2020, meeting, expired September 14, 2022, and is currently on a monthly renewal basis. The space consists of an on-campus branch, staff person, and video teller/ATM machine located in approximately 700 sq. ft. within the Memorial Union. UM and UCU will negotiate a lease renewal for up to fifteen (15) years including renewals. The value of the lease is anticipated to be approximately \$30,000 annually.

UM Rangeley Road (UCU as Lessor):

The building to be negotiated and leased by the University from UCU is 139 Rangeley Rd. located on the UM Campus. The building consists of approximately 6,600 sq. ft. of which the Bodwell Center for Service & Volunteerism and Black Bear Exchange will be co-located, and the Office of Innovation & Economic Development (OIED) will be located in the back half of the building. Utilization of this space will provide the Bodwell and Black Bear Exchange a larger, more organized, and efficient space for them and their customers. Final use of the space, terms, and services to be finalized as part of the negotiations. The term of the lease is expected to be up to fifteen (15) years with an anticipated cost of \$56,000 per year. The cost of this lease will be offset by the income from the other UM/UMM-UCU leases and the difference paid by OIED.

UMM Powers Hall (UCU as Lessee):

The space to be negotiated and leased by UCU within UMM Powers Hall may consist of an on-campus branch, staff person, and video teller/ATM located in approximately 300 sq. ft. within Powers Hall. Final space layout, terms, and services to be finalized as part of negotiations. The term of the lease is expected to be up to fifteen (15) years with an anticipated value of \$12,000 annually.

USM Locations (UCU as Lessee):

The lease for the existing Gorham location and various USM campus video teller/ATM locations will be negotiated. The existing space at the Gorham campus consists of a 96 sq. ft. office within Brooks Student Center. The term of the lease is expected to be up to ten (10) years.

**e. Explanation of the scope and substance of the project as needed to supplement (a) and (d) above.**

University Credit Union (UCU) is a not-for-profit financial institution offering unique services for students, employees and alumni, and their families, of the University of Maine System. Founded in 1967 UCU has been a long-term partner providing financial well-being in every state of life for the communities of the seven universities and communities of Maine by being active in the communities while providing financial education to members. UCU has expanded to provide financial training to students and community members at the Memorial Union location, USM campus, UMPI campus, and UMF campus and will offer the same services at the Machias campus.

UCU currently has locations on numerous UMS campuses including, UM, USM, UMPI and UMF; and locations in Bangor, Portland, Farmington and at Maine Maritime Academy.

**f. Changes, if any, in net square footage or ongoing operating costs resulting from the project:**

Renovation costs within the space at all locations is at the expense of the lessee.

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At the UM, 139 Rangeley Rd. location the University will be leasing an approximately 6,600 gsf building. Utilities will be paid through the operating budget and costs for renovations of this space are estimated at \$150,000 and will be funded from E&G.

**g. Budget for the project and further elaboration on funding source and selection as needed to supplement (b) above):**

N/A

**h. Alternatives that were considered to meet the need being addressed by this project:**

N/A

**i. Timeline for start, occupancy, and completion:**

UCU currently occupies branch offices at the UM Memorial Union and USM Brooks Student Union and will continue to do so throughout negotiations with new leases to commence upon completion of negotiation. UM/UMM anticipate to complete negotiations with UCU by the end of November of 2022 and for UCU to commence minor renovations in the spring of 2023 and take occupancy of the UMM branch location in the late summer of 2023. UM anticipates to complete negotiations for the 139 Rangeley Rd. UCU building by the end of November of 2022 and to commence renovations immediately and to occupy the space by spring/summer of 2023.

**j. Timeline for any further consideration or action anticipated to be needed by the Board or its committees regarding this project if full authority is not being requested from the outset.**

N/A

**k. Additional information that may be useful to consideration of the item.**

UCU is an active member in supporting the University's missions and student success.

The Finance, Facilities and Technology Committee approved this recommendation to be forwarded to the Consent Agenda for Board of Trustee approval at the November 13-14, 2022 Board meeting.

**TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees accepts the recommendation of the Finance, Facilities and Technology Committee, and authorizes the University of Maine System acting through the University of Maine (UM) ) / University of Maine Machias (UMM) and University of Southern Maine (USM) to negotiate and enter into leases as the lessor with UCU for branch office at the UM Memorial Union, UM Machias Powers Hall, and USM campuses and to negotiate and enter into a lease as the lessee with UCU for the UCU building located at 139 Rangeley Rd. with all final terms and conditions subject to review and approval by the University of Maine System Treasurer and General Counsel.

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University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Naming of UMaine Athletics New Softball Indoor Batting Pavilion

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:**

**BOARD ACTION:** X

**BOARD POLICY:**

803 – Naming of Physical Facilities

**UNIFIED ACCREDITATION CONNECTION:**

Non-applicable

**BACKGROUND:**

The University of Maine System, acting through the University of Maine (UM) requests authorization to name the new softball indoor batting pavilion as the **Kathryn E. Slott Batting Pavilion**.

This request is pursuant to Board Policy 803 *Naming of Physical Facilities* and the current proposed revisions, which requires Board approval for the naming of any physical facility in the University of Maine System, upon the approval of the Chancellor, Vice Chancellor for Finance and the campus President. In this case the request is to forward the approval to the Consent Agenda for authorization at the November 13-14, 2022 Board of Trustees Meeting.

Associate Professor of French Kathryn E. Slott has been on the faculty at UMaine for forty years. During that time, she has been a loyal supporter of the University and of athletics with a lifetime giving record exceeding \$450,000. She plans to give an additional \$150,000 to the Alford Fund Athletics Master Plan before December 31, 2027. The existing softball grandstand which bears Dr. Slott's name will be removed with the new construction and so she will be losing her existing named space. The University would like to name the new softball indoor batting pavilion in her honor so that the facility will be known as the **Kathryn E. Slott Batting Pavilion**.

Per Board Policy 803 Section 3.b. "Benefactor naming: A donor may be recognized when a person, organization or corporation has provided substantial funding for a facility or other entity as defined below. Each University may offer such opportunities to acknowledge donors' roles in advancing its mission and so that as an institution the university can express its deep appreciation in a concrete manner. Naming opportunities are not transactional in nature; they are not offered "for sale." The university president will advise what is considered "substantial funding" based on the project and the naming opportunities. Consideration shall be given to the visibility and use of the space, current market, donor interest, and campus and peer institution comparables. Criteria shall include:

- i. New Construction: (which may include maintenance endowments): Gift amounts shall provide a substantial portion of the project's total cost.

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ii. Existing Facilities: The gift(s) shall provide a substantial amount of funding for maintenance, repairs, and/or enhancement or renovation of a facility or space.”

In this case, the donor to the University will provide the University \$150,000 with the payment terms to be paid in full before December 31, 2027. The Donor has the option of paying in advance of this schedule. The University will utilize the funds towards the Harold Alfond Foundation 10-Year Athletics Master Plan in accordance with the grant requirement of the University to raise \$20 million of match funds.

The Finance, Facilities and Technology Committee approved this recommendation to be forwarded to the Consent Agenda for Board of Trustee approval at the November 13-14, 2022 Board meeting.

**TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees accepts the recommendation of the Finance, Facilities, and Technology Committee, and authorizes the University of Maine System acting through the University of Maine to name the softball indoor batting pavilion the **Kathryn E. Slott Batting Pavilion**.

University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Academy Building Exterior Restoration Increase Authorization, USM

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:**

**BOARD ACTION:** X

**BOARD POLICY:**

701 Budgets, Operating & Capital

**UNIFIED ACCREDITATION CONNECTION:**

Not applicable for Unified Accreditation but impacts USM's art department classes.

**BACKGROUND:**

**a. Summary of the request:**

The University of Maine System acting through the University of Southern Maine, requests to increase the authorization to renovate and restore the exterior of the Academy Building on the Gorham campus by an additional \$500,000. The Finance, Facilities and Technology (FFT) Committee approved \$800,000 in June 2022 and would bring the total budget to \$1,300,000. The additional funds are required to address hidden structural damage that was uncovered during repairs to the exterior siding and foundation.

This request is pursuant to Board Policy 701 Operating & Capital Budgets, which requires Capital budget items that have a total cost of \$500,000 and any increases to those projects, be considered by the Board of Trustees or its Finance, Facilities and Technology (FFT) Committee. In this case the Committee's recommendation will be forwarded to the Consent Agenda for Board of Trustees approval.

**b. Overall requested budget and funding source:**

The overall budget of this project is \$1,300,000 to be funded by University E&G funds.

**c. Confirmation of whether the project was included or reflected in the Master Plan, Long Term capital plan or 1-year capital plan most recently approved by Trustees.**

This project was included in the capital plan recently approved for FY23 and the additional funding will also be funded from the FY23 capital funds requiring a delay of another project to FY24.

**d. More detailed explanation of rationale for project and metrics for success of the project (ROI or other):**

The Gorham Academy Building was built in 1805, opened in 1806, and was placed on National Historic Register in 1973 and was opened prior to Maine's 1820 statehood. The building is an important historical landmark building to the State of Maine, the Town of Gorham, and the University of Southern Maine. The building currently houses painting classes for USM's School of Art. Due to the building's wood construction, years of weathering has caused extensive exterior decay resulting in wood rot and undermined the building's structural integrity. The current deteriorated condition will require extensive and specialized repair and replacement of original woodwork in addition to foundation repairs.

Additional funds are required due to major structural damage caused by years of water infiltration behind the siding which has caused the underlying structural wood framing to rot. These rotted wood structural members will fail eventually if not replaced leading to a potential catastrophic failure of the building. These rotted structural members were not found until the siding was removed and construction was underway.

11/3/2022

**e. Explanation of the scope and substance of the project as needed to supplement (a) and (d) above:**

A study was completed by a historic preservation architect firm, Artifex.

This study detailed some serious exterior foundation issues on the east side of the building and included specs and estimates for renovation of all four sides of the Academy Building. The renovation was specific to meeting the historic preservation of the building for the Town of Gorham and the State of Maine. The project includes a complete rebuild of the east façade including the foundation, columns and portico along with removal of old paint and replacement of damaged wood siding and repainting the entire building.

**f. Changes, if any, in net square footage or ongoing operating costs resulting from the project:**

No changes in square footage. The project will improve the building's envelope and decrease air infiltration into the building which should result in some energy savings.

**g. Budget for the project and further elaboration on funding source and selection as needed to supplement (b) above):**

The project is funded with University E&G funds and is included in the University FY23 Capital plan

**h. Alternatives that were considered to meet the need being addressed by this project:**

Temporary repairs were completed to stabilize the building on the east side from further deterioration minimizing the current financial impact.

**i. Timeline for start, occupancy and completion**

The University has contracted to complete a small portion of the work, including urgent foundation work to ensure the structural integrity of the east side of the building.

With the additional structural repairs, the work is expected to be completed by early summer 2023

**j. Timeline for any further consideration or action anticipated to be needed by the Board or its committees regarding this project if full authority is not being requested from the outset:**

Interior improvements were also scoped in the study completed by the historical architect, Artifex. The estimated scope of those repairs and ADA upgrades was \$400,000 to \$600,000. USM intends to complete these upgrades when funding becomes available.

**k. Additional information that may be useful to consideration of the item:**

The study was phased into two parts, exterior and interior. The current request is for the exterior scope of the project which will make the Academy Building weather tight and minimize interior damage until further funding can be allocated. Future funding will address the interior work identified by the historic preservation study.

The Finance, Facilities and Technology committee approved this recommendation to be forwarded to the Consent Agenda for Board of Trustee approval at the November 13-14, 2022 Board meeting.

**TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees accepts the recommendation of the Finance, Facilities and Technology Committee and authorizes the University of Maine System, acting through the University of Southern Maine to expend and additional \$500,000 for a total of \$1,300,000 E&G funds to renovate and restore the exterior of the Academy Building on the Gorham campus.

Attachment:

[USM Academy Building – Background Information](#)

11/3/2022

University of Maine System  
Board of Trustees

**AGENDA ITEM SUMMARY**

**NAME OF ITEM:** Skate Shop Lease, USM Ice Arena

**INITIATED BY:** Dannel P. Malloy, Chancellor

**BOARD INFORMATION:**

**BOARD ACTION:** X

**BOARD POLICY:**

802 – Disposition of Real Property

**UNIFIED ACCREDITATION CONNECTION:** N/A

**BACKGROUND:**

**a. Summary of the request**

The University of Maine System acting through the University of Southern Maine requests authorization to enter into a lease with Neal Farwell, dba Buxton Blade Precision Sharpening and Repair to operate the skate sharpening shop at the USM Ice Arena in Gorham, Maine for a period of five (5) years with five (5) optional one (1) year renewals.

This request is pursuant to Board Policy 802, Disposition of Real Property, which requires leases with a total value of over \$100,000 and with a term greater than 5 years to be considered by the Board of Trustees or its Finance, Facilities and Technology Committee. In this case, given the duration of the lease, the Committee recommendation will be forwarded to the Consent Agenda at the November 13-14, 2022, Board meeting.

**b. Overall requested budget and funding source:**

The lease does not provide any revenue as the Lessee will provide ice skate sharpening services to the University Southern Maine's ice hockey team members' ice skates in exchange for rent of the space.

**c. Confirmation of whether the project was included or reflected in the Master Plan, Long Term capital plan or 1-year capital plan most recently approved by Trustees.**

N/A

**d. More detailed explanation of rationale for project and metrics for success of the project (ROI or other):**

The skate sharpening shop lease and service has been found to be more cost effective to offer as a lease rather than use a funded University position to staff.

**e. Explanation of the scope and substance of the project as needed to supplement (a) and (c) above.**

The skate sharpening shop lease was the subject of a public, competitive procurement process. Mr. Farwell has also been the provider for the previous 10 years for this service.

**f. Changes, if any, in net square footage or ongoing operating costs resulting from the project:**

10/14/2022

N/A

**g. Budget for the project and further elaboration on funding source and selection as needed to supplement (b) above):**

The University anticipates a cost of approximately \$600/year to maintain the skate sharpening equipment.

**h. Alternatives that were considered to meet the need being addressed by this project:**

As previously stated, the skate sharpening could be completed by a University funded position but leasing the space and service is more cost effective.

**i. Timeline for start, occupancy and completion:**

Lease would start on December 1, 2022, and the initial term would be five (5) years with five (5) optional One (1) year renewals.

**j. Timeline for any further consideration or action anticipated to be needed by the Board or its committees regarding this project if full authority is not being requested from the outset.**

N/A

**k. Additional information that may be useful to consideration of the item.**

N/A

The Finance, Facilities and Technology Committee approved this recommendation to be forwarded to the Consent Agenda for Board of Trustee approval at the November 13-14, 2022 Board meeting.

**TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees accepts the recommendation of the Finance, Facilities and Technology Committee, and authorizes the University of Maine System acting through the University of Southern Maine enter into a lease for the skate sharpening shop at the USM Ice Arena with Neal Farwell dba Buxton Blade Sharpening and Repair for five (5) years with five (5) optional One (1) year renewals with all final terms and conditions subject to review and approval of the University of Maine System Treasurer and General Counsel.

10/14/2022

**UNIVERSITY OF MAINE SYSTEM**  
Policy Manual

**INTRODUCTION**

**Section 103 Board of Trustees: Bylaws**

**DRAFT**  
**9/14/2022**

Effective: 08/02/1968

Last Revised: 12/09/05; 1/14/08; 7/14/08; 11/15/10; 3/19/12; 7/15/13; 8/24/21; 7/11/22

Responsible Office: Clerk of the Board

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**ARTICLE I - Board of Trustees**

**Section 1.1**     **Function.** Pursuant to the laws of the State of Maine, and in accordance with the federal statutes governing land grant institutions, the Board of Trustees in consultation with the Chancellor, is the governing and planning body of the University of Maine System.

**Section 1.2**     **Membership.**

- a. The Board of Trustees consists of sixteen persons. All members are appointed by the Governor in accordance with State statutes. Fourteen members are appointed to five-year terms. A full-time University of Maine System student serves as a voting member for a two-year term, and the Commissioner of Educational and Cultural Services serves as a voting member, ex-officio.
- b. The members of the Board shall serve without monetary compensation and shall be reimbursed for expenses incurred in the performance of official duties, upon presentation of an expense account.
- c. A Board member shall not vote on a matter in which he or she has a financial interest and each Trustee shall be bound by an appropriate code of ethics, as adopted by the Board of Trustees.

**Section 1.3**     **Powers and duties.**

- a. The Board of Trustees has final authority over all matters within its jurisdiction. The jurisdiction of the Board relates to, and is exercised over, inter alia, all educational, public service and research policies, financial policy, and the relation of the University System to the state and federal governments.
- b. The Board shall appoint a Chancellor who shall serve at its pleasure and be the Chief Administrative and Education Officer of the University System. The Board shall undertake periodic reviews of the Chancellor's performance. A minimum of nine affirmative votes shall be required to appoint or dismiss a Chancellor. The Board shall consult with the Chancellor and shall delegate to the Chancellor authority to execute policies established by the Board, together with responsibility for the internal government and administration of the University System, and such other authority and responsibility as the Board, from time to time, shall deem appropriate.

- c. Presidents of the various institutions and/or units of the University System shall be appointed by the Board on the nomination of the Chancellor and shall serve at the pleasure of the Board. The Chancellor may suspend and/or recommend the dismissal of a President, with final disposition of the matter to be determined by the Board.
- d. The Board of Trustees shall, in consultation with the Chancellor, be responsible for the preparation and approval of all operating and capital budgets, together with University System requests for appropriations, bond issues, and statutory changes, and for their presentation to executive or legislative branches of Maine government in accordance with the provisions of the Maine statutes.

## **ARTICLE II - Organization of the Board**

- Section 2.1**     **Officers.** At the annual meeting, the Board of Trustees shall elect from among its members a Chair and a Vice-Chair, and such other officers as the Board may determine. The term of office shall commence at the conclusion of the annual meeting. A Chair shall be ineligible to serve more than four (4) successive terms. The Chair and Vice Chair must have residency in Maine.
- Section 2.2**     **Treasurer and Clerk.** The Board shall appoint a Clerk and a Treasurer, both of whom shall be sworn and hold their offices at the pleasure of the Trustees.
- Section 2.3**     **Duties of the Chair.** The Chair shall preside at all meetings of the Board and shall be entitled to vote at all meetings of the Board and its Committees. Subject to the approval of the Board, the Chair shall appoint all standing and special committees and shall designate the Chair of such committees. The Chair shall execute all documents on behalf of the Board, except where other provision is made by the Board, and shall exercise the powers and perform the duties set forth in these By-Laws, and such other duties as usually devolve upon the presiding officer of a deliberative body. (*See: Trustee Practice of Annual Evaluation of the Chair*)
- Section 2.4**     **Duties of the Vice-Chair.** The Vice-Chair shall perform the duties of the Chair at the request, or in the absence or incapacity, of the Chair. The Vice-Chair shall be entitled to vote at all meetings of the Board and its Committees.
- Section 2.5**     **Duties of the Treasurer** shall be as provided in the Maine Revised Statutes.
- Section 2.6**     **Duties of the Clerk of the Board.** The Clerk shall prepare the agenda of all meetings of the Board and its committees. The Clerk, or someone the Clerk shall designate, shall attend the meetings, prepare the minutes of such meetings, and forward copies of the minutes to the members of the Board and to such other persons or agencies as the Board may determine. The Clerk shall have charge of all Board records, files, minutes, and official documents, notify appropriate persons and agencies of the Board's actions, and copies of Board records certified by the Clerk shall be evidence in all cases in which the

originals might be used. The Clerk shall send notices of Board and committee meetings to members of the Board, maintain a central calendar for meetings and shall perform related duties assigned by the Chair of the Board.

*(See: Trustee Practice of Annual Assessment of the Board of Trustees.)*

### **ARTICLE III - Committees of the Board**

#### **Section 3.1 Standing Committees.**

- a. The Standing Committees of the Board shall be:
  - Executive Committee
  - Academic & Student Affairs Committee
  - Audit Committee
  - Finance/Facilities and Technology Committee
  - Investment Committee
  - Human Resources and Labor Relations Committee
- b. Membership of committees shall be determined annually.
- c. The Chair and Vice-Chair of the Board and the Chancellor of the University System shall be ex-officio members of all standing committees, but the Chancellor shall have no vote.
- d. Each committee shall have at least three members, apart from the ex-officio members.
- e. The standing committees of the Board shall have such powers, duties and responsibilities as may be assigned to them by the Board Chair and agreed upon by the Board.
- f. The Executive Committee of the Board shall consist of the Chair and Vice-Chair of the Board and the chair of the other standing committees and other Trustees for a total of at least 9 members. The Chair of the Board shall be the Chair of the Committee. It shall have and exercise between meetings of the Board, any and all powers of the latter not specifically reserved to it, except that it may not take action against an expressed policy of the Board.
- g. Except for the Executive Committee, Audit Committee, and Human Resources and Labor Relations Committee, the standing committees may include persons who are not members of the Board, who may not, however, participate where subject matter is otherwise reserved.
- h. Actions taken by the Committee requiring Board approval will be placed on the agenda or the consent agenda of a regular meeting.
- i. See Board of Trustees Policy 215 Remote Public Meetings for detailed information on participation and quorum requirements for Remote Public meetings.

**Section 3.2** **Ad hoc Committees** may be established by vote of the Board to undertake special assignments upon completion of which the committee shall be discharged by vote of the Board. The Committees may include persons who are not members of the Board. The Chair may also appoint task forces or subcommittees in those instances where the appointment of an Ad Hoc



Committee would not be practical due to minimal time requirements for its activities or the nature of the subject matter assigned.

**Section 3.3** Except as otherwise provided, all committee actions shall be reported to the Board for approval.

**Section 3.4** Meetings of all committees ordinarily shall be called by the appropriate Committee Chair, but may be called by the Chair of the Board or a majority of a Committee.

#### **ARTICLE IV - Meetings**

**Section 4.1** **Regular Meetings.** At the annual meeting, the Board shall establish a schedule of meetings for the ensuing year which shall provide for a minimum of four regular meetings, at least one to be scheduled in each calendar quarter.

**Section 4.2** **The annual meeting** shall be the last regular meeting scheduled in each fiscal year.

**Section 4.3** **Special meetings** shall be held upon the call of the Chair of the Board or upon the written request of seven members of the Board.

**Section 4.4** **Public meetings.** Regular and special meetings of the Board and its committees shall be open to the press and the public, except by vote of the Board for discussion of those matters which are permitted under the statutes to be discussed in executive session.

**Section 4.5** **Remote Public Meetings**  
Refer to the Board of Trustees Policy 215 Remote Public Meetings.

**Section 4.6** **Notices.** Written notice of each regular meeting shall be sent by the Clerk to the members of the Board at least seven days prior to the date of the meeting.

**Section 4.7** **Quorum.** A majority of the current membership of the Board shall constitute a quorum for the transaction of business, except as otherwise provided in these By-Laws. Refer to the Board of Trustees Policy 215 Remote Public Meetings for quorum requirements for remote meetings.

**Section 4.8** **Parliamentary Procedure.** Robert's Rules of Order, Revised, except as otherwise modified by the rules and regulations of the Board, shall serve as the parliamentary authority.

**Section 4.9** **Faculty Representatives to the Board of Trustees.** There are eight Faculty Representatives to the Board of Trustees (UM, UMA, UMF, UMFk, UMM, UMPI, USM and the Law School) which are elected by the campus faculty organizations and approved by the Board of Trustees. One of these Faculty Representative to the Board is invited to join the Board table for each regularly scheduled Board meeting. The Faculty Representative will be a non-voting

participant and will not be included in executive sessions. The Faculty Representatives will inform the Board Office prior to the Board meeting who will be their delegate at the Board table. The Faculty Representative at the Board table is encouraged to participate in discussions on behalf of the Faculty Representatives.

#### **ARTICLE V - Indemnification**

**Section 5** Subject to the provisions of law or policies adopted or approved by the Board of Trustees, the University System shall indemnify any person who was or is a party or is threatened to be a party to any threatened, pending or contemplated action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such person was or is a trustee, officer, employee or agent of the University System, or was or is acting in the course and scope of such person's duties or at the request of the University System against expenses, including attorney's fees, judgments, fines and amounts paid in settlement actually or reasonably incurred by such person in connection with such action suit or proceeding.

#### **ARTICLE VI - Amendments**

**Section 6** These By-Laws may be amended at any regular meeting of the Board by approval of a majority of those present provided the proposed amendment shall have been presented in writing at the previous regular or special meeting of the Board, or shall have been sent with the call of the meeting at which the amendments are voted upon.

#### **Related Documents:**

Trustee Practice of Annual Evaluation of the Chair  
Trustee Practice of Annual Assessment of the Board of Trustees  
Trustee Practice on Indemnification

## **NECHE Exit Report**

October 12, 2022

Below is a summary of the October 5, 2022 Exit Report delivered by evaluation team chair Ross Gittell as compiled from notes taken by multiple System staff. Links to NECHE's *Standards for Accreditation* are provided for reference.

### **Introduction**

Today's report is an oral summary of strengths and concerns and is consistent with the list the team will include in [its final] report. It is a candid review of strengths and areas where the team finds a need for further attention. We appreciate the progress that has been made and hope this report guides further [UMS] action.

### **Strengths**

#### Standard 1: Mission and Purposes

1. Leadership teams, faculty, and staff demonstrate a strong commitment to the mission of unified accreditation.
2. The unified UMS mission provides a strong case for funded support. Major funding sources [e.g. the Alford Foundation] illustrate significant progress [in this regard].

#### Standard 2: Planning and Evaluation

1. Unified accreditation reflects innovative thinking and planning to address the changing environment of higher education while also serving local communities.
2. In their planning processes, the universities and System have cultivated an environment of collaboration and a reduction of competition.
3. UMS demonstrates a commitment to serving the people and students of Maine, especially in the more rural areas of the state.

#### Standard 3: Organization and Governance

1. There is System-wide belief in the potential of unified accreditation to address problems for students and the state, and dedication to [demonstrating] how a unified focus can further the UMS mission.
2. The Board of Trustees believes in the potential of unified accreditation to fulfill the UMS mission.
3. System staff are dedicated to tackling unified accreditation on behalf of students at all of the universities.

#### Standard 4: The Academic Program

1. The University of Maine's research program and Carnegie R1 status benefit all UMS universities.

2. Every UMS distance and online student can access [academic support] services, coaches, advising, and career services.
3. Unified accreditation provides tools that expand the development and sharing of courses and programs across the System and thereby broaden access.

#### Standard 5: Students

1. Staff at each university and the System are dedicated to the success of students and the specific populations they serve. This is evident in their response to student needs and in their engagement of students.

#### Standard 6: Teaching, Learning, and Scholarship

No strengths were noted about Standard 6.\*

#### Standard 7: Institutional Resources

1. The consolidation of shared services began before unified accreditation; is well-postured; and shows hallmarks of a mature model. UMS's shared services teams show a desire for continuous improvement and collaboration.

#### Standard 8: Educational Effectiveness

1. Unified accreditation provides a platform and support for educational effectiveness [i.e. academic assessment] that can cross to other standards. UMS TRANSFORMS is an example of this kind of cross-standard work.

#### Standard 9: Integrity, Transparency, and Public Disclosure

1. Infrastructure and processes are in place to develop and make publicly available key policies; these processes both reflect and seek the perspectives of stakeholders.

*\*Note from Jeff St. John: Evaluation teams are not required to identify strengths and concerns for every Standard. There is nothing negative or unusual about an absence of strengths/concerns in a given area of a team's report.*

### **Concerns**

#### Standard 1: Mission and Purposes

No concerns were noted about Standard 1.

#### Standard 2: Planning and Evaluation

1. The absence of a [current] System-wide strategic plan has delayed progress. Without a plan and clear identification of goals, priorities, metrics, and timelines, it is hard to move forward in a timely and coherent way.
2. There is too high of a reliance on external consultants/vendors for UMS initiatives like the development of the strategic plan. This is incongruent with the voiced public urgency for [implementing] unified accreditation.

#### Standard 3: Organization and Governance

1. There is a need for greater clarity on roles, responsibilities, and decision authority.
2. While collaboration is encouraged, current metrics continue to foster competition among [various university units].
3. The faculty role in governance [via the UMS Faculty Governance Council] is identified as an area of concern deterring progress. [The Council] needs to engage faculty and develop a charter that is clear and agreed upon.

#### Standard 4: The Academic Program

No concerns were noted about Standard 4.

#### Standard 5: Students

1. Identification and support of student needs remains strong at the university level, but is less organized at the System level. Action is needed to develop more System-level support to help students take advantage of resources and courses System-wide.
2. Each university serves different populations. Responses to unique needs are organized by university and need to retain some of that customization.
3. Analysis of retention and completion [data] will provide a clearer understanding of the role of each university, and how the System can support the universities' efforts to reach unique populations. Consideration should be given as to how to set metrics by population groups as opposed to solely at the university level.

#### Standard 6: Teaching, Learning, and Scholarship

No concerns were noted about Standard 6.

#### Standard 7: Institutional Resources

1. Unified accreditation offers significant value through the sharing of resources. Stronger System-led processes are needed to realize unified accreditation's promise.
2. The Repaving MaineStreet project shows promise. However, it is difficult to track its progress due to a lack of ownership. The project needs clarity and communication about goals, objectives, and timelines. This is critical. A strong project management approach is needed.

#### Standard 8: Educational Effectiveness

1. In addition to university-based assessment, System-wide assessment requires further development.

#### Standard 9: Integrity, Transparency, and Public Disclosure

No concerns were noted about Standard 9.

#### **Conclusion**

In conclusion, we extend our appreciation for your help and hospitality. Through this process, we have identified many strengths and [areas where] progress [has been] made. We hope our identification of strengths and challenges will be helpful as you move forward on this important and difficult work.

*End of Exit Report*

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#### **Next steps and timeline**

- Approx. November 16: UMS receives the evaluation team's draft report and responds with corrections for factual accuracy (only).
- Approx. December 7: The team's final report is shared with NECHE and UMS, and the team chair's confidential recommendation is shared with NECHE (only). The confidential recommendation is a standard component of the evaluation process.
- Approx. mid-December: NECHE invites UMS to respond on substantive grounds to the team's report. Our response should be no more than 5-6 pages in length and may include updates on our progress in addressing concerns cited by the team. We are also free to address any differences of interpretation we have with the team's assessments.
- March or April 2023: Chancellor Malloy and President Gittell meet with the full NECHE Commission in Massachusetts. Collectively, they discuss the self study, the team report, our response to the report, and questions and observations from Commission members.
- Approx. May/June 2023: The Commission sends Chancellor Malloy and Chair Riley a letter detailing its findings and providing guidance for future UMS action.



EDUCATION  
Career Insights for  
Learners Success

Laurie Consoli  
Senior Account Manager  
[Laurie.consoli@lightcast.io](mailto:Laurie.consoli@lightcast.io)



Explore. Discover. Transform.

# Today's Discussion Topics

- Analyst
  - What is Analyst
  - What can Analyst provide
  - What reports are in Analyst
  - How can the University of Maine use Analyst
- Demo of the Analyst platform



# What is Analyst?

Our comprehensive labor market analysis software that gives you the labor market data you need to align programs with market demand.



# What does Analyst provide?

*All the economic and workforce data you need—in one place.*



## Programs

Develop and review programs with relevant data on employer demand and the competitive landscape.



## Occupations

Find top jobs and evaluate the long-term occupational outlook of careers.



## Job Postings

See real-time trends based on the kind of workers that regional employers are looking for.



## Industry

Analyze your region's top industries and how they relate to the broader labor market.



## Skills

Adjust your curricula based on the market's most in-demand skills and certifications.



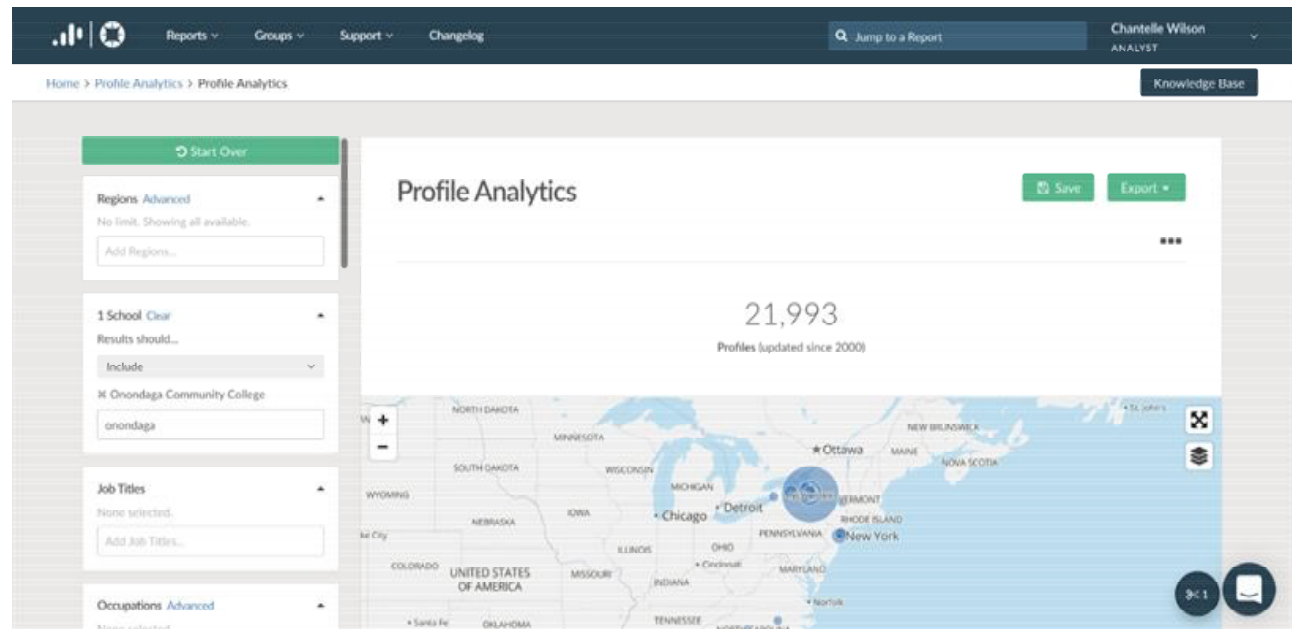
## Demographics

Focus marketing efforts with data on population, race/ethnicity, and gender.

# What does Analyst provide?

## *Profile Data*

- ☒ Job Title
- ☒ Employer
- ☒ Occupation
- ☒ Skills & Qualifications
- ☒ Location
- ☒ Alma Mater



# Reports found in Analyst Economy

## Educational Attainment

Concerning educational attainment, 17.7% of the selected regions' residents possess a Bachelor's Degree (2.6% below the national average), and 12.8% hold an Associate's Degree (4.1% above the national average).

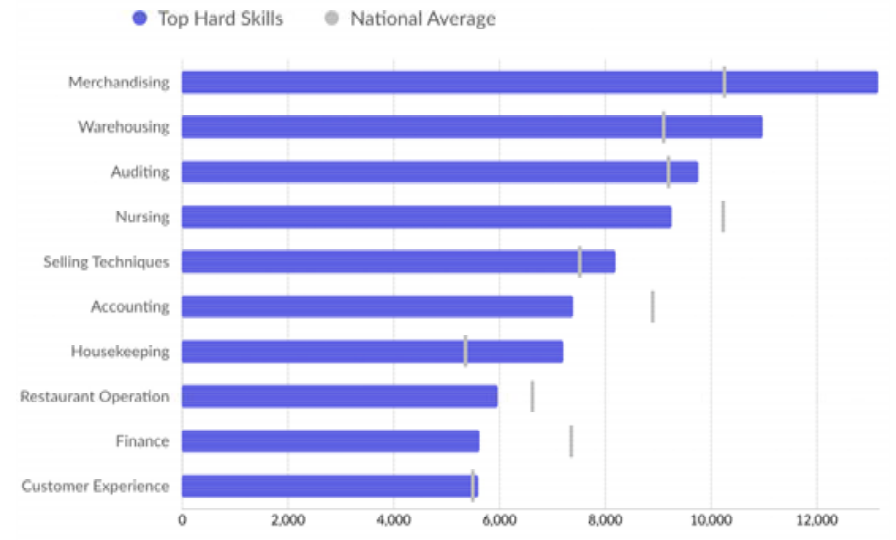
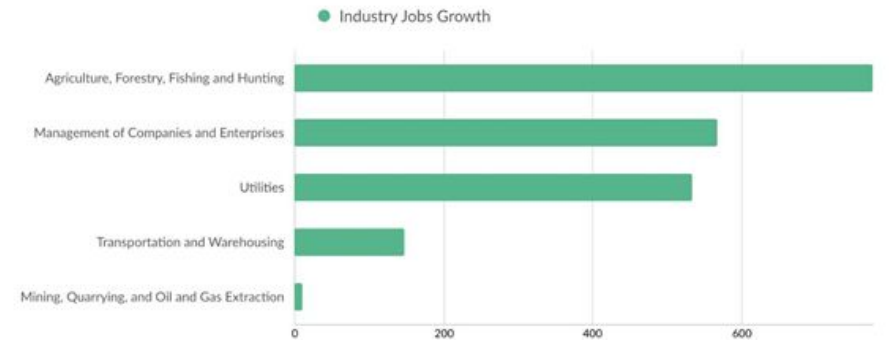


	% of Population	Population
Less Than 9th Grade	2.8%	14,931
9th Grade to 12th Grade	6.5%	34,338
High School Diploma	28.6%	152,096
Some College	17.8%	94,671
Associate's Degree	12.8%	68,000
Bachelor's Degree	17.7%	94,249
Graduate Degree and Higher	13.7%	72,725

## Top Occupation Location Quotient



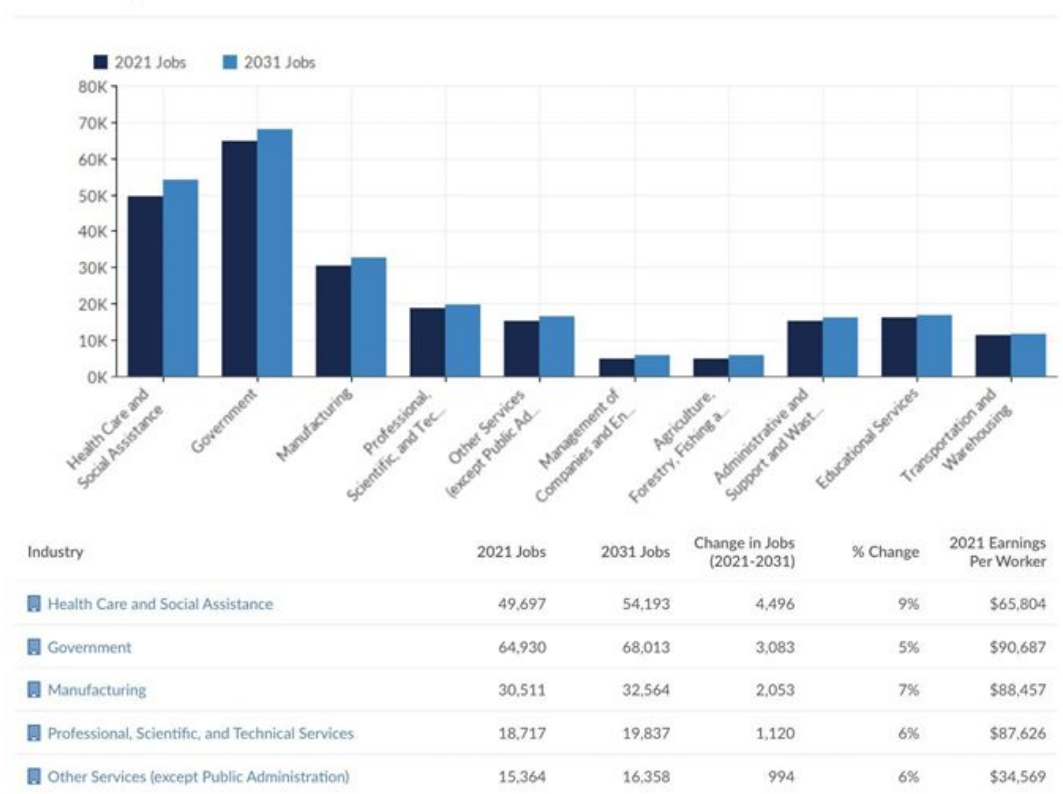
## Top Growing Industries



# Reports found in Analyst *Industry*

- Are we responsive to the fastest growing industries in our 5-county service region?
- Do we have partnerships with employers in these industries?
- What are the related occupations in these industries?

Fastest Growing Industries




# Reports found in Analyst *Occupations*

- Are we offering programs for these growing occupations?
- What credentials or certifications should we provide for students to find gainful employment in these occupations?

**Occupation Table**  
All Occupations in 5 New York Counties

5-Digit ▼ Filter (1) ▼ Keep Hide Jump To ▼ + Create Group Add/Remove Columns

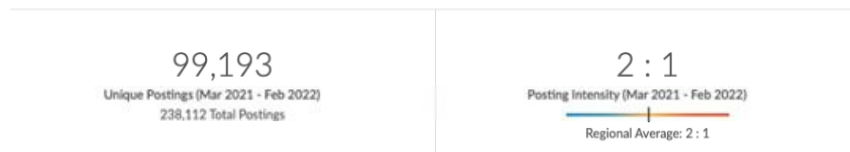
Save Export ▼



<input type="checkbox"/>	SOC	Description	2021 Jobs	2031 Jobs	2021 - 2031 Change	2021 - 2031 % Change	Median Hourly Earnings	Median Annual Earnings	Typical Entry Level Education	?
<input type="checkbox"/>	25-2011	Preschool Teachers, Except Special Education	764	920	156	20%	\$15.24	\$31,707.87	Associate's degree	
<input type="checkbox"/>	31-2011	Occupational Therapy Assistants	67	80	13	19%	\$24.33	\$50,610.34	Associate's degree	
<input type="checkbox"/>	31-2021	Physical Therapist Assistants	220	259	39	18%	\$22.58	\$46,969.61	Associate's degree	
<input type="checkbox"/>	17-3012	Electrical and Electronics Drafters	48	56	8	17%	\$27.94	\$58,122.08	Associate's degree	
<input type="checkbox"/>	19-4011	Agricultural and Food Science Technicians	32	37	5	16%	\$18.70	\$38,903.74	Associate's degree	
<input type="checkbox"/>	17-3027	Mechanical Engineering Technologists and Technicians	65	75	10	15%	\$24.92	\$51,837.67	Associate's degree	
<input type="checkbox"/>	29-2056	Veterinary Technologists and Technicians	223	256	33	15%	\$17.89	\$37,207.33	Associate's degree	
<input type="checkbox"/>	15-1257	Web Developers and Digital Interface Designers	305	342	37	12%	\$23.88	\$49,669.31	Associate's degree	
<input type="checkbox"/>	17-3026	Industrial Engineering Technologists and Technicians	129	144	15	12%	\$24.72	\$51,416.77	Associate's degree	
<input type="checkbox"/>	49-2091	Avionics Technicians	74	82	8	11%	\$25.55	\$53,140.87	Associate's degree	

# Reports found in Analyst *Job Postings*

## Job Postings Overview



There were 238,112 total job postings for your selection from March 2021 to February 2022, of which 99,193 were unique. These numbers give us a Posting Intensity of 2-to-1, meaning that for every 2 postings there is 1 unique job posting.

This is close to the Posting Intensity for all other occupations and companies in the region (2-to-1), indicating that they are putting average effort toward hiring for this position.

- What are the top in-demand jobs titles within our service region?
- What skills are employers asking for?
- Keep an eye on the emerging market so that you can get ahead of the curve.

## Top Posted Job Titles

Job Title	Total/Unique (Mar 2021 - Feb 2022)	Posting Intensity	Unique Postings Trend (Mar 2021 - Feb 2022)
Customer Service Representatives	1,516 / 547	3 : 1	
Delivery Drivers	2,829 / 499	6 : 1	
CDL-A Truck Drivers	1,011 / 498	2 : 1	
Cashiers	1,725 / 480	4 : 1	

## Licensed Practical Nurses

## Sales Associates

## Administrative Assistants

## Retail Sales Associates

## Warehouse Workers

## Registered Nurses

## Top Companies Posting

Company	Total/Unique (Mar 2021 - Feb 2022)	Posting Intensity	Unique Postings Trend (Mar 2021 - Feb 2022)
Syracuse University	9,922 / 2,254	4 : 1	
Anthem	2,981 / 1,672	2 : 1	
Amazon	9,178 / 1,371	7 : 1	
SUNY Upstate Medical University	6,425 / 1,360	5 : 1	
SUNY	2,236 / 1,017	2 : 1	
Inficon	1,670 / 789	2 : 1	
Robert Half	1,144 / 687	2 : 1	
Critigroup	774 / 648	1 : 1	
Lowe's	2,045 / 641	3 : 1	
Liberty Resources	1,866 / 627	3 : 1	

# Reports found in Analyst *Profile Analytics*

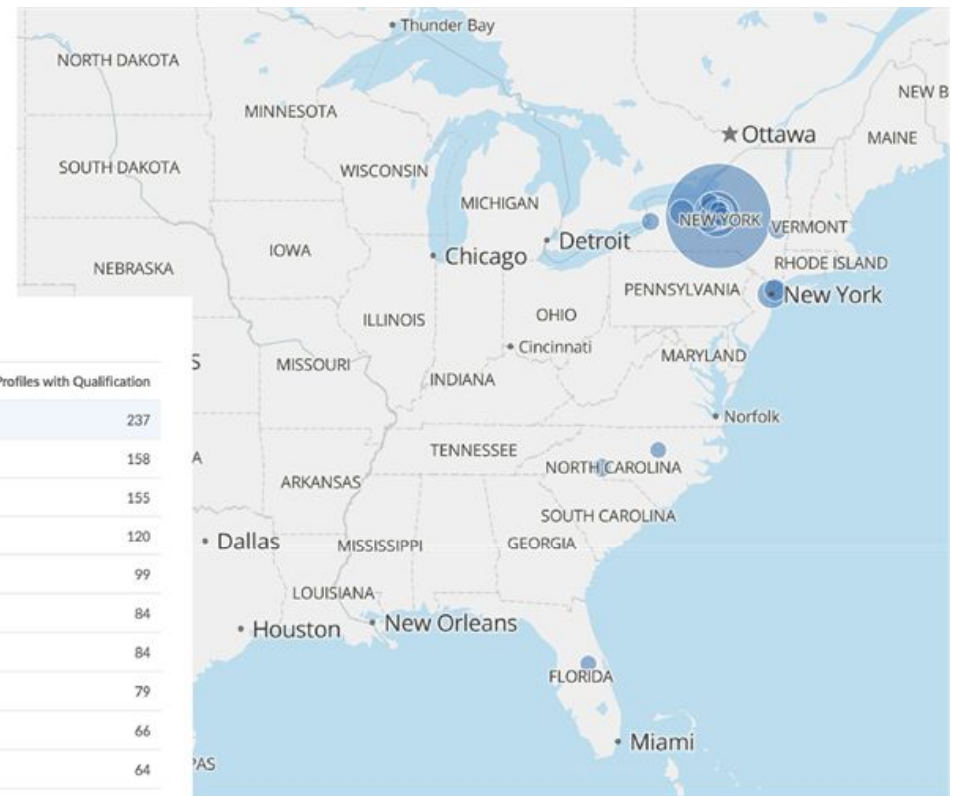
## Top Hard Skills

Skill	Frequency in Profiles	Profiles with Skill / Total Profiles (2000 - 2022)
Strategic Planning	10%	2,172 / 21,993
Event Planning	9%	1,924 / 21,993
Customer Satisfaction	8%	1,661 / 21,993
Sales Management	7%	1,523 / 21,993
Inventory Management		

## Adobe Photoshop

## Top Qualifications

Qualification	Profiles with Qualification
Security Clearance	237
Certified Nursing Assistant	158
Licensed Practical Nurse	155
ServSafe Certification	120
CompTIA Certification	99
Certified First Responder	84
Project Management Professional Certification	84
LEED Accredited Professional (AP)	79
CompTIA A+	66
CompTIA Security+	64





# Reports found in Analyst Programs

WHAT  
PROGRAMS  
SHOULD WE

OFFER

DISCONTINUE

ENHANCE



	Completions (2020)	% Completions	Institutions (2020)	% Institutions
All Programs	306	100%	2	100%
Distance Offered Programs	163	53%	1	50%
Non-Distance Offered Programs	143	47%	1	50%

## Completions by Institution

Institution	Completions (2020)	Growth % YOY (2020)	Market Share (2020)	IPEDS Tuition & Fees (2020)
Cayuga County Community College	163	1.9%	53.3%	\$5,884
Onondaga Community College	143	-12.3%	46.7%	\$5,754

## Target Occupations

171 Jobs (2021) ⓘ 53% below National average	+13.5% ⓘ % Change (2021-2026) Nation: +11.6%	\$27.34/hr \$56.9K/yr ⓘ Median Earnings Nation: \$29.08/hr; \$60.5K/yr	22 Annual Openings	
Occupation	2021 Jobs	Annual Openings	Median Earnings	Growth (2021 - 2026)
Interpreters and Translators	113	15	\$24.55/hr	+16.81%
Social Scientists and Related Workers, All Other	29	3	\$43.60/hr	+10.34%
Artists and Related Workers, All Other	29	3	\$15.98/hr	+6.90%
Unclassified Occupation	0	0	\$0.00/hr	0.00%

# New & Upcoming Value Added to Analyst



## Completed Integration

- New job postings data and company classification (all tools)
- Export job postings text in Analyst (up to 500 most recent postings)
- 2010-2015 JPA data
- Custom Report Builder
- Global Occupation Taxonomy



## Upcoming Integration

- Side-by-Side Reports
- Skills Structure & Metadata
- Models
- Program Reporting Improvements

# Success Stories



**CASE STUDY**

## UNIVERSITY OF FLORIDA

Using Labor Market Data to Uncover New Markets and Drive Sustainable Growth

Traditional on-campus programs serve a vital role for millions of students across the nation, but an increasing number of institutions are also turning to online programs to drive enrollment growth and reach new markets. This shift can open up incredible opportunity for colleges, but also presents unique challenges.

What programs would best align with labor market needs? How much enrollment can you anticipate? Where should you market the program?

These are the questions Aaron King is helping to tackle as program development manager at the University of Florida's Distance Learning office. King uses labor market data from Analyst to forecast program demand and identify what he calls "education deserts." This insight helps UF develop and market relevant online programs that expand the university's impact beyond Gainesville.

To read the full case study, visit [economicmodeling.com/uf-online-growth](https://economicmodeling.com/uf-online-growth)

**ANALYST**  
from  
**Emsi**

CREATE RELEVANT PROGRAMS

You shouldn't have to cross your fingers and hope your programs are effective. That's why we created Analyst—our comprehensive labor market analysis software that gives you the labor market data you need to align programs with market demand. Discover new opportunities. Validate successful programs. Identify at-risk programs. Analyst makes objective analysis a breeze.

LEARN MORE AT:  
[economicmodeling.com/higher-education](https://economicmodeling.com/higher-education)



**CASE STUDY**

## WAUBONSEE COMMUNITY COLLEGE

Uses Labor Market Data to Anticipate Needs, Develop High-Impact Programs

Despite a challenging enrollment environment for many colleges, Waubensee Community College (WCC) is thriving by prioritizing data-driven program development. In 2018, WCC made Toni Ford the college's first full time Program Development Coordinator. Using labor market data from Emsi, Ford's team evaluates program opportunities by three key criteria, asking if those programs will lead to jobs that are:

**HIGH DEMAND • HIGH GROWTH • HIGH WAGE**

As a result, Waubensee is able to anticipate student needs and create programs that deliver compelling value to students.

To read the full case study, visit [economicmodeling.com/wcc](https://economicmodeling.com/wcc)

**PROGRAM PLANNING & REVIEW**  
with  
**Emsi**

CREATE RELEVANT PROGRAMS

Align your programs with labor market demand and give your students the education they need to succeed in a competitive job market. Dig into the data yourself in Analyst or get personalized recommendations in the Program Demand Gap Analysis.

LEARN MORE AT:  
[economicmodeling.com/higher-education](https://economicmodeling.com/higher-education)



## University of Maine System Managed Investment Pool

September 30, 2022

**TOTAL PLAN PERFORMANCE**

	Market Value (\$)	% of Portfolio	Policy (%)	1 Mo (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
<b>MIP Composite</b>	<b>319,558,751</b>	<b>100.0</b>	<b>100.0</b>	<b>-6.0</b>	<b>-4.0</b>	<b>-19.0</b>	<b>-15.7</b>	<b>2.7</b>	<b>2.9</b>	<b>4.7</b>	<b>4.8</b>
Allocation Index				-6.7	-4.6	-18.6	-15.2	3.2	3.6	5.3	5.2
Policy Index				-7.1	-4.7	-19.1	-15.8	2.7	3.4	5.5	5.3
<b>Total Domestic Large Cap</b>	<b>72,396,759</b>	<b>22.7</b>	<b>22.0</b>	<b>-9.2</b>	<b>-4.9</b>	<b>-23.9</b>	<b>-15.5</b>	<b>8.1</b>	<b>9.2</b>	<b>11.3</b>	<b>11.6</b>
S&P 500 Index				-9.2	-4.9	-23.9	-15.5	8.2	9.2	11.4	11.7
SSgA S&P 500	72,396,759	22.7	22.0	-9.2	-4.9	-23.9	-15.5	8.1	9.2	11.3	11.6
S&P 500 Index				-9.2	-4.9	-23.9	-15.5	8.2	9.2	11.4	11.7
<b>Total Domestic Small/Mid Cap</b>	<b>19,575,765</b>	<b>6.1</b>	<b>6.0</b>	<b>-9.0</b>	<b>-1.4</b>	<b>-22.0</b>	<b>-18.1</b>	<b>9.8</b>	<b>7.6</b>	<b>9.8</b>	<b>10.7</b>
Russell 2500 Index				-9.5	-2.8	-24.0	-21.1	5.4	5.5	8.4	9.6
Westfield Capital	9,213,143	2.9	3.0	-8.6	0.0	-28.5	-26.5	8.2	8.5	10.1	10.9
Russell 2500 Growth Index				-8.6	-0.1	-29.5	-29.4	4.8	6.3	8.8	10.3
DFA	10,362,621	3.2	3.0	-9.3	-2.7	-15.3	-9.3	9.8	5.5	8.5	9.7
Russell 2000 Value Index				-10.2	-4.6	-21.1	-17.7	4.7	2.9	7.4	7.9
<b>Global Equity</b>	<b>28,109,013</b>	<b>8.8</b>	<b>10.0</b>	<b>-8.8</b>	<b>-7.0</b>	<b>-28.8</b>	<b>-23.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
MSCI World Index (Net)				-9.3	-6.2	-25.4	-19.6	4.6	5.3	7.9	8.1
Walter Scott Global Equity	28,109,013	8.8	10.0	-8.8	-7.0	-28.8	-23.1	-	-	-	-
MSCI World Index (Net)				-9.3	-6.2	-25.4	-19.6	4.6	5.3	7.9	8.1
<b>Total International Equity (including emerging markets)</b>	<b>51,241,097</b>	<b>16.0</b>	<b>21.0</b>	<b>-8.2</b>	<b>-7.5</b>	<b>-30.7</b>	<b>-30.2</b>	<b>-3.7</b>	<b>-3.2</b>	<b>1.0</b>	<b>1.4</b>
MSCI EAFE (Net)				-9.4	-9.4	-27.1	-25.1	-1.8	-0.8	2.8	3.7
Silchester International Value Equity	14,096,327	4.4	5.0								
MSCI EAFE Index				-9.3	-9.3	-26.8	-24.7	-1.4	-0.4	3.3	4.2
JO Hambro	10,575,452	3.3	5.0	-9.8	-12.1	-40.1	-36.6	-	-	-	-
MSCI EAFE (Net)				-9.4	-9.4	-27.1	-25.1	-1.8	-0.8	2.8	3.7
Kabouter International Opportunities Offshore Fund II	375,609	0.1									
MSCI EAFE Small Cap (Net)				-11.5	-9.8	-32.1	-32.1	-2.2	-1.8	3.2	5.3
Axiom International Small Cap Equity	6,874,998	2.2	4.0	-10.0	-7.9	-	-	-	-	-	-
MSCI EAFE Small Cap (Net)				-11.5	-9.8	-32.1	-32.1	-2.2	-1.8	3.2	5.3



## University of Maine System Managed Investment Pool

September 30, 2022

**TOTAL PLAN PERFORMANCE**

	Market Value (\$)	% of Portfolio	Policy (%)	1 Mo (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
<b>Emerging Markets Equity</b>	<b>19,318,712</b>	<b>6.0</b>	<b>7.0</b>	<b>-8.8</b>	<b>-6.2</b>	<b>-26.8</b>	<b>-26.6</b>	<b>1.4</b>	<b>0.2</b>	<b>3.1</b>	<b>0.6</b>
Emerging Markets Equity Custom Benchmark				-10.9	-8.4	-25.6	-25.6	1.8	0.2	5.4	2.1
Aberdeen Emerging Mkts	8,996,515	2.8	3.5	-10.2	-12.0	-32.8	-35.0	-3.7	-2.5	2.9	0.2
MSCI Emerging Markets (Net)				-11.7	-11.6	-27.2	-28.1	-2.1	-1.8	3.9	1.0
Mondrian EM Small Cap	10,322,197	3.2	3.5	-7.5	-0.7	-21.2	-18.2	6.0	2.5	2.9	-
MSCI Emerging Markets Small Cap				-10.0	-5.3	-24.2	-23.2	5.5	1.3	4.7	2.9
<b>Total Fixed Income</b>	<b>89,722,507</b>	<b>28.1</b>	<b>26.5</b>	<b>-3.7</b>	<b>-3.1</b>	<b>-10.8</b>	<b>-10.5</b>	<b>-0.4</b>	<b>1.3</b>	<b>2.2</b>	<b>2.4</b>
Blmbg. U.S. Aggregate Index				-4.3	-4.8	-14.6	-14.6	-3.3	-0.3	0.5	0.9
Commonfund	42,859,549	13.4	9.5	-4.3	-4.8	-15.0	-15.0	-2.9	0.0	1.0	1.5
Blmbg. U.S. Aggregate Index				-4.3	-4.8	-14.6	-14.6	-3.3	-0.3	0.5	0.9
Vanguard Inflation-Protected Securities	5,451,034	1.7	3.5	-6.6	-5.3	-13.5	-11.5	0.7	1.9	-	-
Blmbg. U.S. TIPS				-6.6	-5.1	-13.6	-11.6	0.8	2.0	2.2	1.0
Vanguard Short-Term Inflation-Protected Securities	6,105,202	1.9	3.5	-2.9	-2.6	-4.0	-2.9	2.4	-	-	-
Blmbg. U.S. TIPS 1-5 Year Index				-3.5	-3.1	-5.2	-4.1	2.3	2.2	2.1	1.2
Blackrock Strategic Income Opportunities	17,366,716	5.4	5.0	-2.5	-1.8	-7.1	-7.3	0.8	-	-	-
Libor 3 month Index				0.3	0.8	1.4	1.5	0.9	1.5	1.3	1.0
Bain Capital Senior Loan Fund	17,940,006	5.6	5.0	-2.8	0.7	-5.4	-4.4	2.5	-	-	-
Credit Suisse Leveraged Loan Index				-2.2	1.2	-3.3	-2.6	2.1	3.0	3.7	3.7
<b>Total GAA</b>	<b>26,935,694</b>	<b>8.4</b>	<b>7.5</b>	<b>-2.9</b>	<b>-3.2</b>	<b>-10.3</b>	<b>-6.7</b>	<b>0.8</b>	<b>1.4</b>	<b>3.1</b>	<b>2.7</b>
40% Bloomberg Agg/30% MSCI ACWI/30% ICE BoA 91-day T-Bills*				-4.5	-3.7	-13.7	-11.9	0.3	2.3	4.8	4.5
Newton Global Real Return	26,935,694	8.4	7.5	-2.9	-3.2	-10.3	-6.7	2.5	3.8	-	-
40% Bloomberg Agg/30% MSCI ACWI/30% ICE BoA 91-day T-Bills				-4.5	-3.7	-13.7	-11.9	0.3	1.9	-	-
<b>Total Hedge Funds</b>	<b>30,203,305</b>	<b>9.5</b>	<b>7.0</b>	<b>0.7</b>	<b>1.5</b>	<b>1.9</b>	<b>0.0</b>	<b>10.2</b>	<b>6.4</b>	<b>5.6</b>	<b>4.4</b>
HFRI Fund of Funds Composite Index				-2.0	-0.7	-7.2	-6.8	4.0	3.0	3.1	3.4
Lighthouse	30,203,305	9.5	7.0	0.7	1.5	1.9	0.0	10.2	7.0	6.2	-
Credit Suisse Long/Short Equity				-2.7	-2.8	-10.8	-8.9	3.1	2.9	3.1	4.8
<b>Private Equity</b>	<b>1,314,257</b>	<b>0.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.5</b>	<b>1.8</b>	<b>11.9</b>	<b>12.4</b>	<b>11.3</b>	<b>-</b>
Landmark Equity Partners XV	1,314,257	0.4	0.0	0.0	0.0	2.5	1.8	11.9	12.4	11.3	-
CJA US All PE (1 Qtr Lag)				-3.4	-3.4	2.9	8.8	19.9	17.7	15.4	15.5



## University of Maine System Managed Investment Pool

September 30, 2022

**TOTAL PLAN PERFORMANCE**

	Market Value (\$)	% of Portfolio	Policy (%)	1 Mo (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
<b>Total Cash</b>	<b>60,355</b>	<b>0.0</b>	<b>0.0</b>								
Distribution Account	60,355	0.0	0.0	0.0	0.6	0.8	0.9	0.4	0.9	0.7	0.5
90 Day U.S. Treasury Bill				0.2	0.5	0.6	0.6	0.6	1.1	0.9	0.7

## Notes:

Fiscal YTD begins 7/1

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

Emerging Markets Equity Custom Benchmark consists of MSCI EM from Inception to 5/31/2019 and 50% MSCI EM / 50% MSCI EM Small Cap from 6/1/2019 to present.

Returns are net of manager fees

Landmark market value is estimated as of 9/30/2022.

In Sept 2021, the benchmark for Newton Global Real Return changed to 40% Bloomberg Agg/30% MSCI ACWI/30% ICE BoA 91- day T-Bills.



# DISCLAIMERS & DISCLOSURES

Past performance is no guarantee of future results.

Returns for pooled funds, e.g. mutual funds and collective investment trusts, are collected from third parties; they are not generally calculated by NEPC. Returns for separate accounts, with some exceptions, are calculated by NEPC. Returns are reported net of manager fees unless otherwise noted.

A “since inception” return, if reported, begins with the first full month after funding, although actual inception dates (e.g. the middle of a month) and the timing of cash flows are taken into account in Composite return calculations.

NEPC’s preferred data source is the plan’s custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.

All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.

The opinions presented herein represent the good faith views of NEPC as of the date of this presentation and are subject to change at any time. Neither fund performance nor universe rankings contained in this report should be considered a recommendation by NEPC.

This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv







## University of Maine System Pension Plan

September 30, 2022

**TOTAL FUND PERFORMANCE**

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio	Policy (%)	1 Mo (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
<b>Pension Composite</b>	<b>20,012,907</b>	<b>100.0</b>	<b>100.0</b>	<b>-4.6</b>	<b>-3.6</b>	<b>-15.2</b>	<b>-12.0</b>	<b>2.4</b>	<b>3.1</b>	<b>4.2</b>	<b>4.4</b>
Allocation Index				-4.9	-3.6	-13.8	-10.9	2.6	3.3	4.6	4.9
Policy Index				-5.1	-3.8	-13.9	-11.0	2.5	3.3	4.7	5.0
<b>Total Global Equity</b>	<b>5,392,994</b>	<b>26.9</b>	<b>30.0</b>	<b>-8.7</b>	<b>-6.9</b>	<b>-29.0</b>	<b>-23.1</b>	<b>3.1</b>	<b>-</b>	<b>-</b>	<b>-</b>
MSCI World Index (Net)				-9.3	-6.2	-25.4	-19.6	4.6	5.3	7.9	8.1
Walter Scott Global Equity Fund	5,392,994	26.9	30.0	-8.7	-6.9	-29.0	-23.1	3.1	-	-	-
MSCI World Index (Net)				-9.3	-6.2	-25.4	-19.6	4.6	5.3	7.9	8.1
<b>Emerging Markets Equity</b>	<b>632,605</b>	<b>3.2</b>	<b>3.0</b>	<b>-7.5</b>	<b>-0.7</b>	<b>-21.2</b>	<b>-18.2</b>	<b>6.0</b>	<b>2.5</b>	<b>2.9</b>	<b>0.8</b>
Emerging Markets Equity Benchmark				-10.0	-5.3	-24.2	-23.2	5.5	2.2	6.9	3.1
Mondrian EM Small Cap	632,605	3.2	3.0	-7.5	-0.7	-21.2	-18.2	6.0	2.5	2.9	-
MSCI Emerging Markets Small Cap				-10.0	-5.3	-24.2	-23.2	5.5	1.3	4.7	2.9
<b>Total Fixed Income</b>	<b>8,280,670</b>	<b>41.4</b>	<b>43.0</b>	<b>-3.9</b>	<b>-3.5</b>	<b>-12.5</b>	<b>-12.4</b>	<b>-1.7</b>	<b>0.6</b>	<b>1.3</b>	<b>1.5</b>
Blmbg. U.S. Aggregate Index				-4.3	-4.8	-14.6	-14.6	-3.3	-0.3	0.5	0.9
Baird Aggregate Bond Fund - BAGIX	5,289,058	26.4	26.0	-4.3	-4.7	-15.3	-15.4	-	-	-	-
Blmbg. U.S. Aggregate Index				-4.3	-4.8	-14.6	-14.6	-3.3	-0.3	0.5	0.9
Vanguard Inflation-Protected Securities	399,540	2.0	3.5	-6.6	-5.3	-13.5	-11.5	0.7	1.9	-	-
Blmbg. U.S. TIPS				-6.6	-5.1	-13.6	-11.6	0.8	2.0	2.2	1.0
Vanguard Short-Term Inflation-Protected Securities - VTSPX	437,241	2.2	3.5	-2.9	-2.6	-4.0	-2.9	2.4	-	-	-
Blmbg. U.S. TIPS 1-5 Year Index				-3.5	-3.1	-5.2	-4.1	2.3	2.2	2.1	1.2
BlackRock Strategic Income Opportunities	991,949	5.0	5.0	-2.5	-1.8	-7.1	-7.3	0.8	-	-	-
Libor 3 month Index				0.3	0.8	1.4	1.5	0.9	1.5	1.3	1.0
Bain Capital Senior Loan Fund	1,162,883	5.8	5.0	-2.8	0.7	-5.4	-4.4	2.5	-	-	-
Credit Suisse Leveraged Loan Index				-2.2	1.2	-3.3	-2.6	2.1	3.0	3.7	3.7
<b>Total GAA</b>	<b>1,466,042</b>	<b>7.3</b>	<b>8.0</b>	<b>-2.9</b>	<b>-3.2</b>	<b>-10.3</b>	<b>-6.7</b>	<b>2.5</b>	<b>3.0</b>	<b>4.2</b>	<b>3.3</b>
40% Bloomberg Agg/30% MSCI ACWI/30% ICE BoA 91-day T-Bills*				-4.5	-3.7	-13.7	-11.9	0.3	2.3	4.8	4.5
Newton Global Real Return	1,466,042	7.3	8.0	-2.9	-3.2	-10.3	-6.7	2.5	3.8	-	-
40% Bloomberg Agg/30% MSCI ACWI/30% ICE BoA 91-day T-Bills				-4.5	-3.7	-13.7	-11.9	0.3	1.9	-	-



## University of Maine System Pension Plan

September 30, 2022

**TOTAL FUND PERFORMANCE**

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio	Policy (%)	1 Mo (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
<b>Total Alternative Investments</b>	<b>1,173,039</b>	<b>5.9</b>	<b>5.0</b>	<b>0.7</b>	<b>1.5</b>	<b>1.9</b>	<b>0.0</b>	<b>10.2</b>	<b>6.4</b>	<b>5.6</b>	<b>4.7</b>
HFRI Fund of Funds Composite Index				-2.0	-0.7	-7.2	-6.8	4.0	3.0	3.1	3.4
Lighthouse	1,173,039	5.9	5.0	0.7	1.5	1.9	0.0	10.2	7.0	6.2	-
Credit Suisse Long/Short Equity				-2.7	-2.8	-10.8	-8.9	3.1	2.9	3.1	4.8
<b>Total Real Assets</b>	<b>2,012,007</b>	<b>10.1</b>	<b>8.0</b>								
Principal	2,012,007	10.1	8.0	0.3	0.4	10.9	22.0	11.4	9.7	9.5	10.5
NCREIF ODCE				0.5	0.5	13.1	22.1	12.4	10.2	9.8	10.9
<b>Total Cash</b>	<b>1,055,551</b>	<b>5.3</b>	<b>3.0</b>								
Distribution Account	1,055,551	5.3	3.0	0.0	0.1	0.1	0.1	0.2	0.8	0.6	0.4
90 Day U.S. Treasury Bill				0.2	0.5	0.6	0.6	0.6	1.1	0.9	0.7

## Notes:

Fiscal YTD begins 7/1

Blended Index: 40% Bloomberg Aggregate, 30% Bloomberg U.S. TIPS 1-10YR, 10% S&P 500, 10% Bloomberg High Yield, 10% JPM EMBI+ Emerging Markets Equity Benchmark consists of MSCI EM from inception to 5/31/2019 and MSCI EM Small Cap from 6/1/2019 to present. Returns are net of manager fees.

In Sept 2021, the benchmark for Newton Global Real Return changed to 40% Bloomberg Agg/30% MSCI ACWI/30% ICE BoA 91- day T-Bills.



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NEPC’s preferred data source is the plan’s custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.

All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.

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Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv





## University of Maine System Operating Fund

September 30, 2022

**TOTAL FUND PERFORMANCE**

	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
<b>Operating Funds Composite</b>	<b>320,859,323</b>	<b>100.0</b>	<b>100.0</b>	<b>-1.6</b>	<b>-1.0</b>	<b>-5.6</b>	<b>-5.0</b>	<b>1.9</b>	<b>2.3</b>	<b>2.7</b>	<b>2.2</b>
<i>Allocation Index</i>				-1.6	-1.1	-5.8	-5.1	1.0	1.9	2.3	2.1
<b>Liquidity Pool Composite</b>	<b>136,796,406</b>	<b>42.6</b>	<b>30.0</b>	<b>0.1</b>	<b>0.4</b>	<b>0.7</b>	<b>0.7</b>	<b>0.8</b>	<b>1.2</b>	<b>1.0</b>	<b>0.8</b>
State Pool	91,600,525	28.5		0.1	0.3	0.6	0.7	1.0	1.3	1.1	0.9
BOA General Fund	1,847,114	0.6		0.1	0.2	0.5	0.6	0.5	0.6	0.4	0.3
Federated Gov't Obligations	26,741,774	8.3		0.2	0.5	0.7	0.7	0.5	1.0	-	-
Transition Cash	15,353,227	4.8		0.0	-	-	-	-	-	-	-
JP Morgan US Gov't Money Market Fund	1,253,765	0.4		0.2	0.6	0.8	0.8	0.5	1.0	-	-
<i>FTSE 3 Month T-Bill</i>				0.2	0.4	0.6	0.6	0.6	1.1	0.9	0.7
<b>Income Pool Composite</b>	<b>138,928,902</b>	<b>43.3</b>	<b>47.5</b>	<b>-2.1</b>	<b>-1.6</b>	<b>-6.8</b>	<b>-7.0</b>	<b>-0.3</b>	<b>1.0</b>	<b>1.4</b>	<b>1.4</b>
Income Research + Management	78,943,253	24.6	26.0	-1.2	-1.2	-4.4	-5.0	0.2	1.1	1.1	-
<i>Blmbg. 1-3 Year Gov/Credit index</i>				-1.2	-1.5	-4.5	-5.1	-0.4	0.7	0.8	0.8
BlackRock Strategic Income Opportunities	19,805,407	6.2	7.0	-2.5	-1.8	-7.1	-7.3	0.8	1.7	2.3	-
<i>Libor 3 month Index</i>				0.3	0.8	1.4	1.5	0.9	1.5	1.3	1.0
Baird Aggregate Bond Fund - BAGIX	22,150,701	6.9	7.5	-4.3	-4.7	-15.2	-15.3	-	-	-	-
<i>Blmbg. U.S. Aggregate Index</i>				-4.3	-4.8	-14.6	-14.6	-3.3	-0.3	0.5	0.9
Bain Senior Floating Rate Fund	18,029,540	5.6	7.0	-2.8	0.7	-5.4	-4.4	-	-	-	-
<i>Credit Suisse Leveraged Loan Index</i>				-2.2	1.2	-3.3	-2.6	2.1	3.0	3.7	3.7
<b>Total Return Pool Composite</b>	<b>45,134,015</b>	<b>14.1</b>	<b>22.5</b>	<b>-4.9</b>	<b>-3.4</b>	<b>-14.9</b>	<b>-11.9</b>	<b>5.3</b>	<b>4.8</b>	<b>6.0</b>	<b>4.8</b>
Lighthouse	15,790,311	4.9	5.0	0.7	1.5	1.9	0.0	10.2	7.0	6.2	-
<i>Credit Suisse Long/Short Equity</i>				-2.7	-2.8	-10.8	-8.9	3.1	2.9	3.1	4.8
Newton Global Real Return	11,349,565	3.5	4.0	-2.9	-3.2	-10.4	-6.7	2.4	3.7	-	-
<i>40% Bloomberg Agg/30% MSCI ACWI/30% ICE BoA 91-day T-Bills</i>				-4.5	-3.7	-13.7	-11.9	0.3	1.9	-	-
PIMCO All Asset	10,596,067	3.3	4.0	-7.8	-6.2	-17.5	-14.9	2.5	2.6	5.2	3.1
<i>PIMCO All Asset Index III</i>				-6.6	-5.1	-14.6	-13.7	0.6	1.7	3.1	1.6
Silchester International Value Equity	7,398,072	2.3	3.3								
<i>MSCI EAFE Index</i>				-9.3	-9.3	-26.8	-24.7	-1.4	-0.4	3.3	4.2

## 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% Bloomberg Aggregate / 30% Bloomberg U.S. TIPS 1-10YR / 10% S&amp;P 500 / 10% Bloomberg High Yield / 10% JPM EMBI+ Composite excludes external loans.

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

In Sept 2021, the benchmark for Newton Global Real Return changed to 40% Bloomberg Agg/30% MSCI ACWI/30% ICE BoA 91- day T-Bills.

Transition cash reflects funds that were redeemed from Vanguard Total World Stock and in transit to SSgA S&amp;P 500 Index.



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Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv







## *University of Maine at Augusta FY23 Budget*



- ▶ Budgeted credit hours down 6%
- ▶ Projected tuition shortfall \$1 million
- ▶ Budgeted contingency of \$200,000
- ▶ Current Reserves of \$10 million

## University of Maine at Augusta FY23 Budget

- ▶ Close monitoring of vacant positions
- ▶ Close monitoring of travel and other expenses
- ▶ Possible deferral of certain initiatives/projects
- ▶ Additional targeted marketing for spring 2023
- ▶ Adjustments in FY24 budget proposal





## FY23 Budget Challenges & Solutions

### Challenges:

Tuition & Fees	-1,507,827
Room & Board	-331,236
<b>Total Revenue Reduction</b>	<b>-1,839,063</b>

### Solutions:

HEERF (Lost Rev \$)	853,884
AP Commission	301,500
Attrition (inc. benefits)	294,808
Savings - adj/overloads	235,264
Scholarships	108,663
Dining/misc	44,944
<b>Total Budget Solutions</b>	<b>1,839,063</b>

# *FY23 Budget Updates for the University of Maine at Presque Isle*

- ❖ *Increases in Expense include Energy Costs (Fuel Oil in particular)*
- ❖ *Decreases in Revenue include AP (smaller population of students) which also includes a decrease in the 'payout' to AP because of the smaller student population.*
- ❖ *Decrease in Revenue for Traditional students (less In-State Students) which also includes a decrease in fee collection*
- ❖ *Early College has an increase in students and, at the same time, a decrease in tuition income as a result of EC tuition waivers (MSSM - students signed up for an Associate Degree)*

**EXPECT**the**UNEXPECTED**

UNIVERSITY of MAINE *at* PRESQUE ISLE

## *How will that be covered?*

- ❖ *The increase is \$260,841*
- ❖ *We will be covering that with attrition and decreasing compensation from those being released from their positions*
- ❖ *We are in same position now (in terms of our ability to cover all that is not supported with Stabilization funds) as we were when the budget was originally submitted.*

**EXPECT**the**UNEXPECTED**

UNIVERSITY of MAINE at PRESQUE ISLE



# UNIVERSITY OF SOUTHERN MAINE

*Finance/Facilities/Technology Committee*

***BUDGET UPDATE***

*October 26, 2022*

## USM FY 2023 Budget Update

- **For its FY 2023 budget, USM adopted UMS' conservative enrollment forecast, reflecting a ~2.5% overall reduction in credit hours.**
  - *As of October 15 Census, Tableau reflects a reduction of 5.0%*
  - *As of USM's update to FFT on August 24, that reduction was 6.7%*
  - ***Each 1% change in credit hours—increase or decrease—equates to a ~\$700,000 budget impact → Therefore, a reduction of ~2.5% would equal a ~\$1.75 million budget shortfall***
  - *To be conservative, USM has removed ~\$2 million in revenue from its FY 2023 budget*
- **To address the enrollment shortfall, USM will utilize the following sources to address the corresponding budget gap:**
  - *Deploy Federal Relief Funds: USM has ~\$1 million in federal relief funds remaining*
  - *Increase Housing & Dining Revenue: USM budgeted for 95% capacity in its residence halls; at census, the occupancy rate was 108%, which equates to an additional ~\$700,000 in revenue*
  - *Remove Bad Debt Expense: USM carries an annual bad debt expense of ~\$300,000, which the University has removed from its expenses for FY 2023.*

## USM FY 2023 Budget Update – Budget Adjustment

	SOURCES	USES
<i>Enrollment Shortfall (2.5%)</i>	\$2,003,238	
<i>Federal Relief Funds</i>		(\$975,000)
<i>Housing &amp; Dining</i>		(\$700,000)
<i>Bad Debt Expense</i>		(\$328,238)
<b>Total</b>	<b>\$2,003,238</b>	<b>(\$2,003,238)</b>

- *Earlier this month, USM initiated its annual budget forecasting process, which will shed additional light on real-time budget performance.*

### **Other FY 2023 Budget Resources**

- USM has preserved its E&G Reserve throughout pandemic → ~\$6m balance.
- This figure represents ~5% of USM's operating budget; therefore, the University should work to continue to grow its reserve rather than depleting resources.



## Board of Trustees Meeting - November 2022 - Attachments

## University of Maine at Augusta

FY 23 Revision 10/26/22

## E&amp;G

			BASE BUDGET FY23			
	FY21 ACTUALS	FY22 ACTUALS	ORIGINAL	REVISED	BUDGET CHANGE	
<b>Revenues</b>						
Tuition & Fee Revenue	\$ 22,100,722	\$ 22,433,422	\$ 23,410,593	\$ 22,343,828	\$ (1,066,765)	-4.6%
Dining Revenue	-	-	-	-	-	-%
Residence Revenue	-	-	-	-	-	-%
Tuition Waivers/Scholarships	(3,710,984)	(3,183,340)	(2,692,988)	(2,692,988)	-	0.0%
Net Student Charges Revenue	18,389,739	19,250,082	20,717,605	19,650,840	(1,066,765)	-5.1%
State Appropriation	18,373,781	19,466,151	21,193,991	21,193,991	-	0.0%
HEERF Relief - Lost Revenue	238,653	-	-	-	-	-%
Indirect Cost Recovery	142,954	154,265	160,885	160,885	-	0.0%
Investment Income/Gifts	-	-	-	-	-	-%
Sales/Services/Auxiliary	204,844	256,444	671,558	671,558	-	0.0%
<b>Total Revenue</b>	<b>37,349,971</b>	<b>39,126,942</b>	<b>42,744,039</b>	<b>41,677,274</b>	<b>(1,066,765)</b>	<b>-2.5%</b>
<b>Expenses</b>						
Salaries & Wages	\$19,216,960	\$19,961,860	\$22,062,775	\$22,068,373	\$5,598	0.0%
Attrition (Salary Only)	-	-	(946,129)	(946,129)	-	0.0%
Employee Benefits Including Attrition	8,014,177	9,141,354	8,857,997	8,852,399	(5,598)	-0.1%
Pandemic Pay	60,653	13,199	-	-	-	-%
Personnel	27,291,789	29,116,413	29,974,643	29,974,643	-	0.0%
Other Expenses & Transfers:						
Fuel & Electricity	591,360	851,440	694,275	694,275	-	0.0%
Supplies & Services	1,430,596	1,548,431	1,778,945	1,778,945	-	0.0%
Shared Services	4,799,954	4,858,709	4,985,046	4,985,046	-	0.0%
Travel	35,698	177,298	194,282	194,282	-	0.0%
Memberships, Contributions & Sponsorships	66,759	54,692	62,510	62,510	-	0.0%
Maintenance & Alterations	674,996	747,492	756,493	756,493	-	0.0%
Interest	21,269	12,809	2,890	2,890	-	0.0%
Depreciation	1,793,782	1,904,481	2,024,019	2,024,019	-	0.0%
Transfers to/(from) MAFES/CES	-	-	-	-	-	-%
Transfers to/(from) MEIF	-	-	-	-	-	-%
Other Expenses & Transfers	1,647,142	106,654	2,382,992	2,382,992	-	0.0%
Unassigned Budget	799	13,034	201,098	201,098	-	0.0%
<b>Total Other Expenses &amp; Transfers</b>	<b>11,062,355</b>	<b>10,275,040</b>	<b>13,082,550</b>	<b>13,082,550</b>	<b>-</b>	<b>0.0%</b>
<b>Total Operating Expenses &amp; Transfers</b>	<b>38,354,144</b>	<b>39,391,453</b>	<b>43,057,193</b>	<b>43,057,193</b>	<b>-</b>	<b>0.0%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (1,004,173)</b>	<b>\$ (264,511)</b>	<b>\$ (313,154)</b>	<b>\$ (1,379,919)</b>	<b>\$ (1,066,765)</b>	<b>340.7%</b>
<b>Modified Cash Flow</b>						
Operating Increase (Decrease)	\$ (1,004,173)	\$ (264,511)	\$ (313,154)	\$ (1,379,919)	\$ (1,066,765)	340.7%
Add Back Depreciation	1,793,782	1,904,481	2,024,019	2,024,019	-	0.0%
Less Capital Expenditures	(499,992)	(676,120)	(1,255,428)	(1,255,428)	-	0.0%
Less Capital Reserve Funding	-	-	-	-	-	-%
Less Debt Service Principal	(244,747)	(267,271)	(113,803)	(113,803)	-	0.0%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>44,870</b>	<b>696,578</b>	<b>341,634</b>	<b>(725,131)</b>	<b>(1,066,765)</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>44,870</b>	<b>696,578</b>	<b>341,634</b>	<b>(725,131)</b>	<b>(1,066,765)</b>	
Other Strategic Transfers from/(to) Reserves	77,808	(1,106)	-	725,131	725,131	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 122,678</b>	<b>\$ 695,472</b>	<b>\$ 341,634</b>	<b>\$ -</b>	<b>\$ (341,634)</b>	

## Board of Trustees Meeting - November 2022 - Attachments

## University of Maine at Augusta

FY 23 Revision 10/26/22

## Auxiliary

			BASE BUDGET FY23			
	FY21 ACTUALS	FY22 ACTUALS	ORIGINAL	REVISED	BUDGET CHANGE	
<b><u>Revenues</u></b>						
Tuition & Fee Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	-%
Dining Revenue	2,110	12,428	7,000	7,000	-	0.0%
Residence Revenue	402,510	537,979	618,756	618,756	-	0.0%
Tuition Waivers/Scholarships	(32,480)	(41,000)	(69,305)	(69,305)	-	0.0%
Net Student Charges Revenue	372,141	509,407	556,451	556,451	-	0.0%
State Appropriation	-	-	-	-	-	-%
HEERF Relief - Lost Revenue	172,565	-	-	-	-	-%
Indirect Cost Recovery	-	-	-	-	-	-%
Investment Income/Gifts	-	-	-	-	-	-%
Sales/Services/Auxiliary	75,988	124,789	67,054	67,054	-	0.0%
<b>Total Revenue</b>	<b>620,694</b>	<b>634,196</b>	<b>623,505</b>	<b>623,505</b>	<b>-</b>	<b>0.0%</b>
<b><u>Expenses</u></b>						
Salaries & Wages	\$115,489	\$115,871	\$80,464	\$80,464	\$0	0.0%
Attrition (Salary Only)	-	-	-	-	-	-%
Employee Benefits Including Attrition	57,106	48,954	38,456	38,456	-	0.0%
Pandemic Pay	20	-	-	-	-	-%
Personnel	172,614	164,825	118,920	118,920	-	0.0%
Other Expenses & Transfers:						
Fuel & Electricity	590	1,747	2,000	2,000	-	0.0%
Supplies & Services	99,724	6,473	58,938	58,938	-	0.0%
Shared Services	-	-	-	-	-	-%
Travel	76	2,325	-	-	-	-%
Memberships, Contributions & Sponsorships	-	-	-	-	-	-%
Maintenance & Alterations	2,865	14,135	11,000	11,000	-	0.0%
Interest	1,415	381	261	261	-	0.0%
Depreciation	15,338	13,069	-	-	-	-%
Transfers to/(from) MAFES/CES	-	-	-	-	-	-%
Transfers to/(from) MEIF	-	-	-	-	-	-%
Other Expenses & Transfers	720,773	719,837	768,142	768,142	-	0.0%
Unassigned Budget	-	-	-	-	-	-%
<b>Total Other Expenses &amp; Transfers</b>	<b>840,781</b>	<b>757,968</b>	<b>840,341</b>	<b>840,341</b>	<b>-</b>	<b>0.0%</b>
<b>Total Operating Expenses &amp; Transfers</b>	<b>1,013,395</b>	<b>922,793</b>	<b>959,261</b>	<b>959,261</b>	<b>-</b>	<b>0.0%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (392,701)</b>	<b>\$ (288,597)</b>	<b>\$ (335,756)</b>	<b>\$ (335,756)</b>	<b>\$ -</b>	<b>0.0%</b>
<b><u>Modified Cash Flow</u></b>						
Operating Increase (Decrease)	\$ (392,701)	\$ (288,597)	\$ (335,756)	\$ (335,756)	\$ -	0.0%
Add Back Depreciation	15,338	13,069	-	-	-	-%
Less Capital Expenditures	(3,619)	(2,917)	-	-	-	-%
Less Capital Reserve Funding	-	-	-	-	-	-%
Less Debt Service Principal	(16,825)	(5,758)	(5,878)	(5,878)	-	0.0%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>(397,808)</b>	<b>(284,204)</b>	<b>(341,634)</b>	<b>(341,634)</b>	<b>-</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>(397,808)</b>	<b>(284,204)</b>	<b>(341,634)</b>	<b>(341,634)</b>	<b>-</b>	
Other Strategic Transfers from/(to) Reserves	-	-	-	341,634	341,634	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ (397,808)</b>	<b>\$ (284,204)</b>	<b>\$ (341,634)</b>	<b>\$ -</b>	<b>\$ 341,634</b>	

Board of Trustees Meeting - November 2022 - Attachments

University of Maine at Augusta

FY 23 Revision 10/26/22

E&G and Auxiliary

			BASE BUDGET FY23			
	FY21 ACTUALS	FY22 ACTUALS	ORIGINAL	REVISED	BUDGET CHANGE	
<b>Revenues</b>						
Tuition & Fee Revenue	\$ 22,100,722	\$ 22,433,422	\$ 23,410,593	\$ 22,343,828	\$ (1,066,765)	-4.6%
Dining Revenue	2,110	12,428	7,000	7,000	-	0.0%
Residence Revenue	402,510	537,979	618,756	618,756	-	0.0%
Tuition Waivers/Scholarships	(3,743,464)	(3,224,340)	(2,762,293)	(2,762,293)	-	0.0%
Net Student Charges Revenue	18,761,879	19,759,489	21,274,056	20,207,291	(1,066,765)	-5.0%
State Appropriation	18,373,781	19,466,151	21,193,991	21,193,991	-	0.0%
HEERF Relief - Lost Revenue	411,218	-	-	-	-	-%
Indirect Cost Recovery	142,954	154,265	160,885	160,885	-	0.0%
Investment Income/Gifts	-	-	-	-	-	-%
Sales/Services/Auxiliary	280,832	381,233	738,612	738,612	-	0.0%
<b>Total Revenue</b>	<b>37,970,664</b>	<b>39,761,138</b>	<b>43,367,544</b>	<b>42,300,779</b>	<b>(1,066,765)</b>	<b>-2.5%</b>
<b>Expenses</b>						
Salaries & Wages	\$19,332,449	\$20,077,731	\$22,143,239	\$22,148,837	\$5,598	0.0%
Attrition (Salary Only)	-	-	(946,129)	(946,129)	-	0.0%
Employee Benefits Including Attrition	8,071,282	9,190,309	8,896,453	8,890,855	(5,598)	-0.1%
Pandemic Pay	60,672	13,199	-	-	-	-%
Personnel	27,464,403	29,281,239	30,093,563	30,093,563	-	0.0%
Other Expenses & Transfers:						
Fuel & Electricity	591,950	853,187	696,275	696,275	-	0.0%
Supplies & Services	1,530,320	1,554,905	1,837,883	1,837,883	-	0.0%
Shared Services	4,799,954	4,858,709	4,985,046	4,985,046	-	0.0%
Travel	35,774	179,623	194,282	194,282	-	0.0%
Memberships, Contributions & Sponsorships	66,759	54,692	62,510	62,510	-	0.0%
Maintenance & Alterations	677,861	761,627	767,493	767,493	-	0.0%
Interest	22,684	13,190	3,151	3,151	-	0.0%
Depreciation	1,809,120	1,917,549	2,024,019	2,024,019	-	0.0%
Transfers to/(from) MAFES/CES	-	-	-	-	-	-%
Transfers to/(from) MEIF	-	-	-	-	-	-%
Other Expenses & Transfers	2,367,915	826,491	3,151,134	3,151,134	-	0.0%
Unassigned Budget	799	13,034	201,098	201,098	-	0.0%
<b>Total Other Expenses &amp; Transfers</b>	<b>11,903,136</b>	<b>11,033,008</b>	<b>13,922,891</b>	<b>13,922,891</b>	<b>-</b>	<b>0.0%</b>
<b>Total Operating Expenses &amp; Transfers</b>	<b>39,367,539</b>	<b>40,314,246</b>	<b>44,016,454</b>	<b>44,016,454</b>	<b>-</b>	<b>0.0%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (1,396,875)</b>	<b>\$ (553,109)</b>	<b>\$ (648,910)</b>	<b>\$ (1,715,675)</b>	<b>\$ (1,066,765)</b>	<b>164.4%</b>
<b>Modified Cash Flow</b>						
Operating Increase (Decrease)	\$ (1,396,875)	\$ (553,109)	\$ (648,910)	\$ (1,715,675)	\$ (1,066,765)	164.4%
Add Back Depreciation	1,809,120	1,917,549	2,024,019	2,024,019	-	0.0%
Less Capital Expenditures	(503,611)	(679,037)	(1,255,428)	(1,255,428)	-	0.0%
Less Capital Reserve Funding	-	-	-	-	-	-%
Less Debt Service Principal	(261,572)	(273,029)	(119,681)	(119,681)	-	0.0%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>(352,938)</b>	<b>412,375</b>	<b>-</b>	<b>(1,066,765)</b>	<b>(1,066,765)</b>	
Transfer from/(to) Administrative Savings Rsrv						
	-	-	-	-	-	
Transfer from/(to) Budget Stabilization						
	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>(352,938)</b>	<b>412,375</b>	<b>-</b>	<b>(1,066,765)</b>	<b>(1,066,765)</b>	
Other Strategic Transfers from/(to) Reserves						
	77,808	(1,106)	-	1,066,765	1,066,765	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ (275,130)</b>	<b>\$ 411,269</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

Board of Trustees Meeting - November 2022 - Attachments

Univ of Maine at Fort Kent			FY 23 Revision 10/26/22			
E&G			BASE BUDGET FY23			
	FY21 ACTUALS	FY22 ACTUALS	ORIGINAL	REVISED	BUDGET CHANGE	
<b>Revenues</b>						
Tuition & Fee Revenue	\$ 7,613,240	\$ 6,709,721	\$ 7,050,380	\$ 5,542,553	\$ (1,507,827)	-21.4%
Dining Revenue	-	-	-	-	-	-%
Residence Revenue	-	-	-	-	-	-%
Tuition Waivers/Scholarships	(1,146,329)	(1,050,884)	(1,030,000)	(921,337)	108,663	-10.5%
Net Student Charges Revenue	6,466,912	5,658,837	6,020,380	4,621,216	(1,399,164)	-23.2%
State Appropriation	7,818,908	8,590,375	8,737,138	8,737,138	-	0.0%
HEERF Relief - Lost Revenue	-	928,261	-	621,138	621,138	-%
Indirect Cost Recovery	22,107	46,782	43,000	43,000	-	0.0%
Investment Income/Gifts	-	-	-	-	-	-%
Sales/Services/Auxiliary	333,533	279,446	307,250	307,250	-	0.0%
<b>Total Revenue</b>	<b>14,641,459</b>	<b>15,503,701</b>	<b>15,107,768</b>	<b>14,329,742</b>	<b>(778,026)</b>	<b>-5.1%</b>
<b>Expenses</b>						
Salaries & Wages	\$6,469,136	\$6,361,134	\$7,285,069	\$6,957,833	(\$327,236)	-4.5%
Attrition (Salary Only)	-	-	(50,000)	(245,237)	(195,237)	390.5%
Employee Benefits Including Attrition	2,702,790	2,691,623	2,997,115	2,852,570	(144,545)	-4.8%
Pandemic Pay	31,310	3,164	-	-	-	-%
Personnel	9,203,236	9,055,921	10,232,184	9,565,166	(667,018)	-6.5%
Other Expenses & Transfers:						
Fuel & Electricity	389,087	462,330	450,300	450,300	-	0.0%
Supplies & Services	994,683	1,379,682	1,542,425	1,234,462	(307,963)	-20.0%
Shared Services	2,025,723	2,114,866	2,177,618	2,177,618	-	0.0%
Travel	50,499	299,530	267,538	265,038	(2,500)	-0.9%
Memberships, Contributions & Sponsorships	42,775	48,948	45,305	45,305	-	0.0%
Maintenance & Alterations	75,515	123,670	170,150	170,150	-	0.0%
Interest	25,470	20,328	15,044	15,044	-	0.0%
Depreciation	743,447	806,310	828,880	828,880	-	0.0%
Transfers to/(from) MAFES/CES	-	-	-	-	-	-%
Transfers to/(from) MEIF	-	-	-	-	-	-%
Other Expenses & Transfers	274,415	617,472	(12,288)	94,429	106,717	-868.5%
Unassigned Budget	800	-	17,453	13,145	(4,308)	-24.7%
<b>Total Other Expenses &amp; Transfers</b>	<b>4,622,414</b>	<b>5,873,135</b>	<b>5,502,425</b>	<b>5,294,371</b>	<b>(208,054)</b>	<b>-3.8%</b>
<b>Total Operating Expenses &amp; Transfers</b>	<b>13,825,650</b>	<b>14,929,056</b>	<b>15,734,609</b>	<b>14,859,537</b>	<b>(875,072)</b>	<b>-5.6%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 815,809</b>	<b>\$ 574,645</b>	<b>\$ (626,841)</b>	<b>\$ (529,795)</b>	<b>\$ 97,046</b>	<b>-15.5%</b>
<b>Modified Cash Flow</b>						
Operating Increase (Decrease)	\$ 815,809	\$ 574,645	\$ (626,841)	\$ (529,795)	\$ 97,046	-15.5%
Add Back Depreciation	743,447	806,310	828,880	828,880	-	0.0%
Less Capital Expenditures	(355,287)	(385,501)	(211,176)	(211,176)	-	0.0%
Less Capital Reserve Funding	-	-	-	-	-	-%
Less Debt Service Principal	(356,953)	(358,701)	(277,923)	(277,922)	1	0.0%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>847,015</b>	<b>636,753</b>	<b>(287,060)</b>	<b>(190,013)</b>	<b>97,047</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	287,060	190,013	(97,047)	
<b>Net Change Subtotal</b>	<b>847,015</b>	<b>636,753</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Other Strategic Transfers from/(to) Reserves	30,757	(415)	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 877,772</b>	<b>\$ 636,338</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

Board of Trustees Meeting - November 2022 - Attachments

Univ of Maine at Fort Kent				FY 23 Revision 10/26/22							
Auxiliary		BASE BUDGET FY23									
		FY21 ACTUALS	FY22 ACTUALS	ORIGINAL	REVISED	BUDGET CHANGE					
<b>Revenues</b>											
Tuition & Fee Revenue	\$	-	\$	-	\$	-	-%				
Dining Revenue		492,045		534,142		561,200	392,454	(168,746)	-30.1%		
Residence Revenue		616,064		655,507		674,820		498,930	(175,890)	-26.1%	
Tuition Waivers/Scholarships		(158,260)		(158,830)		(143,000)		(143,000)	-	0.0%	
Net Student Charges Revenue		949,849		1,030,819		1,093,020		748,384	(344,636)	-31.5%	
State Appropriation		-		-		-		-	-	-%	
HEERF Relief - Lost Revenue		-		297,529		-		232,746	232,746	-%	
Indirect Cost Recovery		-		-		-		-	-	-%	
Investment Income/Gifts		-		-		-		-	-	-%	
Sales/Services/Auxiliary		119,424		109,582		72,850		72,850	-	0.0%	
Total Revenue		1,069,273		1,437,931		1,165,870		1,053,980	(111,890)	-9.6%	
<b>Expenses</b>											
Salaries & Wages		\$239,814		\$242,322		\$261,234		\$261,234	\$0	0.0%	
Attrition (Salary Only)		-		-		-		-	-	-%	
Employee Benefits Including Attrition		110,559		107,560		117,841		117,841	-	0.0%	
Pandemic Pay		1,616		231		-		-	-	-%	
Personnel		351,989		350,113		379,075		379,075	-	0.0%	
Other Expenses & Transfers:											
Fuel & Electricity		143,067		165,136		179,680		179,680	-	0.0%	
Supplies & Services		662,532		878,202		732,763		717,920	(14,843)	-2.0%	
Shared Services		-		-		-		-	-	-%	
Travel		300		89		3,000		3,000	-	0.0%	
Memberships, Contributions & Sponsorships		90		90		90		90	-	0.0%	
Maintenance & Alterations		22,286		49,567		24,200		24,200	-	0.0%	
Interest		186,017		173,912		160,702		160,702	-	0.0%	
Depreciation		234,803		233,041		231,532		231,532	-	0.0%	
Transfers to/(from) MAFES/CES		-		-		-		-	-	-%	
Transfers to/(from) MEIF		-		-		-		-	-	-%	
Other Expenses & Transfers		67,747		(372,549)		44,682		44,682	-	0.0%	
Unassigned Budget		-		-		-		-	-	-%	
Total Other Expenses & Transfers		1,316,840		1,127,487		1,376,649		1,361,806	(14,843)	-1.1%	
Total Operating Expenses & Transfers		1,668,830		1,477,600		1,755,724		1,740,881	(14,843)	-0.8%	
Operating Increase (Decrease)	\$	(599,557)	\$	(39,670)	\$	(589,854)	\$	(686,901)	\$	(97,047)	16.5%
<b>Modified Cash Flow</b>											
Operating Increase (Decrease)	\$	(599,557)	\$	(39,670)	\$	(589,854)	\$	(686,901)	\$	(97,047)	16.5%
Add Back Depreciation		234,803		233,041		231,532		231,532	-	0.0%	
Less Capital Expenditures		(11,083)		(7,378)		-		-	-	-%	
Less Capital Reserve Funding		-		-		-		-	-	-%	
Less Debt Service Principal		(255,704)		(270,909)		(292,618)		(292,618)	-	0.0%	
Net Change Before Other Adjustments & Transfers		(631,540)		(84,915)		(650,940)		(747,987)	(97,047)		
Transfer from/(to) Administrative Savings Rsrv											
Transfer from/(to) Budget Stabilization		-		-		650,940		747,987	97,047		
Net Change Subtotal		(631,540)		(84,915)		-		-	-		
Other Strategic Transfers from/(to) Reserves											
Net Change in Cash & Reserve Transfers	\$	(631,540)	\$	(84,915)	\$	-	\$	-	\$	-	

Board of Trustees Meeting - November 2022 - Attachments

Univ of Maine at Fort Kent

FY 23 Revision 10/26/22

E&G and Auxiliary

			BASE BUDGET FY23			
	FY21 ACTUALS	FY22 ACTUALS	ORIGINAL	REVISED	BUDGET CHANGE	
<b><u>Revenues</u></b>						
Tuition & Fee Revenue	\$ 7,613,240	\$ 6,709,721	\$ 7,050,380	\$ 5,542,553	\$ (1,507,827)	-21.4%
Dining Revenue	492,045	534,142	561,200	392,454	(168,746)	-30.1%
Residence Revenue	616,064	655,507	674,820	498,930	(175,890)	-26.1%
Tuition Waivers/Scholarships	(1,304,589)	(1,209,714)	(1,173,000)	(1,064,337)	108,663	-9.3%
Net Student Charges Revenue	7,416,761	6,689,656	7,113,400	5,369,600	(1,743,800)	-24.5%
State Appropriation	7,818,908	8,590,375	8,737,138	8,737,138	-	0.0%
HEERF Relief - Lost Revenue	-	1,225,790	-	853,884	853,884	-%
Indirect Cost Recovery	22,107	46,782	43,000	43,000	-	0.0%
Investment Income/Gifts	-	-	-	-	-	-%
Sales/Services/Auxiliary	452,957	389,029	380,100	380,100	-	0.0%
<b>Total Revenue</b>	<b>15,710,732</b>	<b>16,941,632</b>	<b>16,273,638</b>	<b>15,383,722</b>	<b>(889,916)</b>	<b>-5.5%</b>
<b><u>Expenses</u></b>						
Salaries & Wages	\$6,708,950	\$6,603,456	\$7,546,303	\$7,219,067	(\$327,236)	-4.3%
Attrition (Salary Only)	-	-	(50,000)	(245,237)	(195,237)	390.5%
Employee Benefits Including Attrition	2,813,349	2,799,183	3,114,956	2,970,411	(144,545)	-4.6%
Pandemic Pay	32,927	3,395	-	-	-	-%
Personnel	9,555,225	9,406,034	10,611,259	9,944,241	(667,018)	-6.3%
Other Expenses & Transfers:						
Fuel & Electricity	532,154	627,466	629,980	629,980	-	0.0%
Supplies & Services	1,657,215	2,257,884	2,275,188	1,952,382	(322,806)	-14.2%
Shared Services	2,025,723	2,114,866	2,177,618	2,177,618	-	0.0%
Travel	50,799	299,619	270,538	268,038	(2,500)	-0.9%
Memberships, Contributions & Sponsorships	42,865	49,038	45,395	45,395	-	0.0%
Maintenance & Alterations	97,801	173,237	194,350	194,350	-	0.0%
Interest	211,487	194,239	175,746	175,746	-	0.0%
Depreciation	978,250	1,039,351	1,060,412	1,060,412	-	0.0%
Transfers to/(from) MAFES/CES	-	-	-	-	-	-%
Transfers to/(from) MEIF	-	-	-	-	-	-%
Other Expenses & Transfers	342,161	244,923	32,394	139,111	106,717	329.4%
Unassigned Budget	800	-	17,453	13,145	(4,308)	-24.7%
<b>Total Other Expenses &amp; Transfers</b>	<b>5,939,254</b>	<b>7,000,623</b>	<b>6,879,074</b>	<b>6,656,177</b>	<b>(222,897)</b>	<b>-3.2%</b>
<b>Total Operating Expenses &amp; Transfers</b>	<b>15,494,480</b>	<b>16,406,657</b>	<b>17,490,333</b>	<b>16,600,418</b>	<b>(889,915)</b>	<b>-5.1%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 216,252</b>	<b>\$ 534,975</b>	<b>\$ (1,216,695)</b>	<b>\$ (1,216,696)</b>	<b>\$ (1)</b>	<b>0.0%</b>
<b><u>Modified Cash Flow</u></b>						
Operating Increase (Decrease)	\$ 216,252	\$ 534,975	\$ (1,216,695)	\$ (1,216,696)	\$ (1)	0.0%
Add Back Depreciation	978,250	1,039,351	1,060,412	1,060,412	-	0.0%
Less Capital Expenditures	(366,370)	(392,879)	(211,176)	(211,176)	-	0.0%
Less Capital Reserve Funding	-	-	-	-	-	-%
Less Debt Service Principal	(612,657)	(629,609)	(570,541)	(570,540)	1	0.0%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>215,475</b>	<b>551,838</b>	<b>(938,000)</b>	<b>(938,000)</b>	<b>-</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	938,000	938,000	-	
<b>Net Change Subtotal</b>	<b>215,475</b>	<b>551,838</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Other Strategic Transfers from/(to) Reserves	30,757	(415)	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 246,232</b>	<b>\$ 551,423</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

## Board of Trustees Meeting - November 2022 - Attachments

Univ of Maine at Presque Isle			FY 23 Revision 10/26/22			
E&G			BASE BUDGET FY23			
	FY21 ACTUALS	FY22 ACTUALS	ORIGINAL	REVISED	BUDGET CHANGE	
<b>Revenues</b>						
Tuition & Fee Revenue	\$ 7,990,690	\$ 8,490,578	\$ 9,553,939	\$ 9,249,138	\$ (304,801)	-3.2%
Dining Revenue	-	-	-	-	-	-%
Residence Revenue	-	-	-	-	-	-%
Tuition Waivers/Scholarships	(964,708)	(882,308)	(904,000)	(920,000)	(16,000)	1.8%
Net Student Charges Revenue	7,025,982	7,608,270	8,649,939	8,329,138	(320,801)	-3.7%
State Appropriation	8,013,478	8,616,602	8,813,733	8,813,733	-	0.0%
HEERF Relief - Lost Revenue	-	-	-	-	-	-%
Indirect Cost Recovery	169,942	149,884	170,000	170,000	-	0.0%
Investment Income/Gifts	1,000	-	-	-	-	-%
Sales/Services/Auxiliary	116,409	175,238	386,400	386,400	-	0.0%
Total Revenue	15,326,811	16,549,993	18,020,072	17,699,271	(320,801)	-1.8%
<b>Expenses</b>						
Salaries & Wages	\$7,513,836	\$8,421,291	\$9,092,778	\$8,897,060	(\$195,718)	-2.2%
Attrition (Salary Only)	-	-	(155,510)	(132,595)	22,915	-14.7%
Employee Benefits Including Attrition	3,216,482	3,992,747	3,806,181	3,718,051	(88,130)	-2.3%
Pandemic Pay	23,658	22,895	-	-	-	-%
Personnel	10,753,976	12,436,933	12,743,449	12,482,516	(260,933)	-2.0%
Other Expenses & Transfers:						
Fuel & Electricity	395,264	541,905	620,300	691,640	71,340	11.5%
Supplies & Services	1,236,215	1,825,654	2,746,980	2,555,280	(191,700)	-7.0%
Shared Services	2,221,336	2,294,515	2,306,686	2,306,686	-	0.0%
Travel	40,554	184,837	311,463	311,363	(100)	0.0%
Memberships, Contributions & Sponsorships	44,104	40,785	74,605	68,105	(6,500)	-8.7%
Maintenance & Alterations	330,790	417,227	305,450	305,450	-	0.0%
Interest	53,276	49,453	45,548	45,548	-	0.0%
Depreciation	867,952	923,817	1,071,105	1,071,105	-	0.0%
Transfers to/(from) MAFES/CES	-	-	-	-	-	-%
Transfers to/(from) MEIF	-	-	-	-	-	-%
Other Expenses & Transfers	165,055	(389,649)	423,691	426,691	3,000	0.7%
Unassigned Budget	-	-	6,070	13,162	7,092	116.8%
Total Other Expenses & Transfers	5,354,545	5,888,543	7,911,898	7,795,030	(116,868)	-1.5%
Total Operating Expenses & Transfers	16,108,522	18,325,476	20,655,347	20,277,546	(377,801)	-1.8%
Operating Increase (Decrease)	\$ (781,711)	\$ (1,775,483)	\$ (2,635,275)	\$ (2,578,275)	\$ 57,000	-2.2%
<b>Modified Cash Flow</b>						
Operating Increase (Decrease)	\$ (781,711)	\$ (1,775,483)	\$ (2,635,275)	\$ (2,578,275)	\$ 57,000	-2.2%
Add Back Depreciation	867,952	923,817	1,071,105	1,071,105	-	0.0%
Less Capital Expenditures	(236,348)	(144,610)	(250,186)	(250,186)	-	0.0%
Less Capital Reserve Funding	(19,982)	(122,184)	-	-	-	-%
Less Debt Service Principal	(91,139)	(91,943)	(97,855)	(97,855)	-	0.0%
Net Change Before Other Adjustments & Transfers	(261,228)	(1,210,402)	(1,912,211)	(1,855,211)	57,000	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	1,199,659	1,912,211	1,855,211	(57,000)	
Net Change Subtotal	(261,228)	(10,743)	-	-	-	
Other Strategic Transfers from/(to) Reserves	(7,651)	10,743	-	-	-	
Net Change in Cash & Reserve Transfers	\$ (268,879)	\$ (0)	\$ -	\$ -	\$ -	

## Board of Trustees Meeting - November 2022 - Attachments

Univ of Maine at Presque Isle

FY 23 Revision 10/26/22

## Auxiliary

			BASE BUDGET FY23			
	FY21 ACTUALS	FY22 ACTUALS	ORIGINAL	REVISED	BUDGET CHANGE	
<b><u>Revenues</u></b>						
Tuition & Fee Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	-%
Dining Revenue	546,128	565,732	822,500	822,500	-	0.0%
Residence Revenue	795,273	849,948	931,260	931,260	-	0.0%
Tuition Waivers/Scholarships	(250,973)	(219,142)	(225,000)	(225,000)	-	0.0%
Net Student Charges Revenue	1,090,428	1,196,538	1,528,760	1,528,760	-	0.0%
State Appropriation	-	-	-	-	-	-%
HEERF Relief - Lost Revenue	803,928	680,474	-	-	-	-%
Indirect Cost Recovery	-	-	-	-	-	-%
Investment Income/Gifts	-	-	-	-	-	-%
Sales/Services/Auxiliary	101,679	39,445	28,000	28,000	-	0.0%
<b>Total Revenue</b>	<b>1,996,034</b>	<b>1,916,457</b>	<b>1,556,760</b>	<b>1,556,760</b>	<b>-</b>	<b>0.0%</b>
<b><u>Expenses</u></b>						
Salaries & Wages	\$223,085	\$274,676	\$251,473	\$251,473	\$0	0.0%
Attrition (Salary Only)	-	-	-	-	-	-%
Employee Benefits Including Attrition	95,893	98,495	104,944	104,944	-	0.0%
Pandemic Pay	5,082	-	-	-	-	-%
Personnel	324,061	373,171	356,417	356,417	-	0.0%
Other Expenses & Transfers:						
Fuel & Electricity	264,831	349,805	323,000	380,000	57,000	17.6%
Supplies & Services	773,560	867,288	926,058	926,058	-	0.0%
Shared Services	-	-	-	-	-	-%
Travel	446	284	500	500	-	0.0%
Memberships, Contributions & Sponsorships	-	-	-	-	-	-%
Maintenance & Alterations	169,572	181,595	232,300	232,300	-	0.0%
Interest	784	559	328	328	-	0.0%
Depreciation	72,648	71,402	64,284	64,284	-	0.0%
Transfers to/(from) MAFES/CES	-	-	-	-	-	-%
Transfers to/(from) MEIF	-	-	-	-	-	-%
Other Expenses & Transfers	177,344	234,320	137,722	137,722	-	0.0%
Unassigned Budget	-	-	-	-	-	-%
<b>Total Other Expenses &amp; Transfers</b>	<b>1,459,185</b>	<b>1,705,253</b>	<b>1,684,192</b>	<b>1,741,192</b>	<b>57,000</b>	<b>3.4%</b>
<b>Total Operating Expenses &amp; Transfers</b>	<b>1,783,246</b>	<b>2,078,424</b>	<b>2,040,609</b>	<b>2,097,609</b>	<b>57,000</b>	<b>2.8%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ 212,788</b>	<b>\$ (161,967)</b>	<b>\$ (483,849)</b>	<b>\$ (540,849)</b>	<b>\$ (57,000)</b>	<b>11.8%</b>
<b><u>Modified Cash Flow</u></b>						
Operating Increase (Decrease)	\$ 212,788	\$ (161,967)	\$ (483,849)	\$ (540,849)	\$ (57,000)	11.8%
Add Back Depreciation	72,648	71,402	64,284	64,284	-	0.0%
Less Capital Expenditures	(8,920)	(125,385)	(116,046)	(116,046)	-	0.0%
Less Capital Reserve Funding	-	-	-	-	-	-%
Less Debt Service Principal	(9,928)	(10,154)	(10,384)	(10,384)	-	0.0%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>266,587</b>	<b>(226,104)</b>	<b>(545,995)</b>	<b>(602,995)</b>	<b>(57,000)</b>	
Transfer from/(to) Administrative Savings Rsv	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	226,104	545,995	602,995	57,000	
<b>Net Change Subtotal</b>	<b>266,587</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Other Strategic Transfers from/(to) Reserves	-	-	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 266,587</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	



Board of Trustees Meeting - November 2022 - Attachments

Univ of Maine at Presque Isle  
E&G and Auxiliary

FY 23 Revision 10/26/22

			BASE BUDGET FY23			
	FY21 ACTUALS	FY22 ACTUALS	ORIGINAL	REVISED	BUDGET CHANGE	
<b>Revenues</b>						
Tuition & Fee Revenue	\$ 7,990,690	\$ 8,490,578	\$ 9,553,939	\$ 9,249,138	\$ (304,801)	-3.2%
Dining Revenue	546,128	565,732	822,500	822,500	-	0.0%
Residence Revenue	795,273	849,948	931,260	931,260	-	0.0%
Tuition Waivers/Scholarships	(1,215,681)	(1,101,450)	(1,129,000)	(1,145,000)	(16,000)	1.4%
Net Student Charges Revenue	8,116,409	8,804,808	10,178,699	9,857,898	(320,801)	-3.2%
State Appropriation	8,013,478	8,616,602	8,813,733	8,813,733	-	0.0%
HEERF Relief - Lost Revenue	803,928	680,474	-	-	-	-%
Indirect Cost Recovery	169,942	149,884	170,000	170,000	-	0.0%
Investment Income/Gifts	1,000	-	-	-	-	-%
Sales/Services/Auxiliary	218,088	214,683	414,400	414,400	-	0.0%
<b>Total Revenue</b>	<b>17,322,845</b>	<b>18,466,451</b>	<b>19,576,832</b>	<b>19,256,031</b>	<b>(320,801)</b>	<b>-1.6%</b>
<b>Expenses</b>						
Salaries & Wages	\$7,736,921	\$8,695,967	\$9,344,251	\$9,148,533	(\$195,718)	-2.1%
Attrition (Salary Only)	-	-	(155,510)	(132,595)	22,915	-14.7%
Employee Benefits Including Attrition	3,312,376	4,091,242	3,911,125	3,822,995	(88,130)	-2.3%
Pandemic Pay	28,741	22,895	-	-	-	-%
Personnel	11,078,037	12,810,104	13,099,866	12,838,933	(260,933)	-2.0%
Other Expenses & Transfers:						
Fuel & Electricity	660,095	891,710	943,300	1,071,640	128,340	13.6%
Supplies & Services	2,009,775	2,692,943	3,673,038	3,481,338	(191,700)	-5.2%
Shared Services	2,221,336	2,294,515	2,306,686	2,306,686	-	0.0%
Travel	41,001	185,121	311,963	311,863	(100)	0.0%
Memberships, Contributions & Sponsorships	44,104	40,785	74,605	68,105	(6,500)	-8.7%
Maintenance & Alterations	500,361	598,822	537,750	537,750	-	0.0%
Interest	54,060	50,012	45,876	45,876	-	0.0%
Depreciation	940,600	995,219	1,135,389	1,135,389	-	0.0%
Transfers to/(from) MAFES/CES	-	-	-	-	-	-%
Transfers to/(from) MEIF	-	-	-	-	-	-%
Other Expenses & Transfers	342,399	(155,330)	561,413	564,413	3,000	0.5%
Unassigned Budget	-	-	6,070	13,162	7,092	116.8%
<b>Total Other Expenses &amp; Transfers</b>	<b>6,813,731</b>	<b>7,593,797</b>	<b>9,596,090</b>	<b>9,536,222</b>	<b>(59,868)</b>	<b>-0.6%</b>
<b>Total Operating Expenses &amp; Transfers</b>	<b>17,891,768</b>	<b>20,403,900</b>	<b>22,695,956</b>	<b>22,375,155</b>	<b>(320,801)</b>	<b>-1.4%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (568,923)</b>	<b>\$ (1,937,450)</b>	<b>\$ (3,119,124)</b>	<b>\$ (3,119,124)</b>	<b>\$ -</b>	<b>0.0%</b>
<b>Modified Cash Flow</b>						
Operating Increase (Decrease)	\$ (568,923)	\$ (1,937,450)	\$ (3,119,124)	\$ (3,119,124)	\$ -	0.0%
Add Back Depreciation	940,600	995,219	1,135,389	1,135,389	-	0.0%
Less Capital Expenditures	(245,269)	(269,995)	(366,232)	(366,232)	-	0.0%
Less Capital Reserve Funding	(19,982)	(122,184)	-	-	-	-%
Less Debt Service Principal	(101,068)	(102,096)	(108,239)	(108,239)	-	0.0%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>5,359</b>	<b>(1,436,506)</b>	<b>(2,458,206)</b>	<b>(2,458,206)</b>	<b>-</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	1,425,763	2,458,206	2,458,206	-	
<b>Net Change Subtotal</b>	<b>5,359</b>	<b>(10,743)</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Other Strategic Transfers from/(to) Reserves	(7,651)	10,743	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ (2,292)</b>	<b>\$ (0)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

## Board of Trustees Meeting - November 2022 - Attachments

## University of Southern Maine

FY 23 Revision 10/26/22

		E&G		BASE BUDGET FY23			
		FY21 ACTUALS	FY22 ACTUALS	ORIGINAL	REVISED	BUDGET CHANGE	
<b>Revenues</b>							
Tuition & Fee Revenue		\$ 73,066,676	\$ 70,402,193	\$ 73,388,402	\$ 71,385,164	\$ (2,003,238)	-2.7%
Dining Revenue		-	-	-	-	-	-%
Residence Revenue		18,269	26,668	-	-	-	-%
Tuition Waivers/Scholarships		(16,541,340)	(16,539,730)	(16,283,471)	(16,283,471)	-	0.0%
Net Student Charges Revenue		56,543,604	53,889,131	57,104,931	55,101,693	(2,003,238)	-3.5%
State Appropriation		46,874,076	47,714,871	51,147,985	51,147,985	-	0.0%
HEERF Relief - Lost Revenue		20,762	4,112,718	-	-	-	-%
Indirect Cost Recovery		3,777,125	4,221,959	3,525,000	3,525,000	-	0.0%
Investment Income/Gifts		132,704	113,045	113,769	113,769	-	0.0%
Sales/Services/Auxiliary		1,546,660	2,294,712	3,843,521	3,843,521	-	0.0%
<b>Total Revenue</b>		<b>108,894,931</b>	<b>112,346,435</b>	<b>115,735,206</b>	<b>113,731,968</b>	<b>(2,003,238)</b>	<b>-1.7%</b>
<b>Expenses</b>							
Salaries & Wages Including Attrition		\$56,197,693	\$59,522,830	\$58,694,714	\$58,692,326	(\$2,388)	0.0%
Add Back: Attr 53906	Attrition	\$0	\$0	\$2,328,511	\$2,328,511		
Salaries & Wages		\$56,197,693	\$59,522,830	\$61,023,225	\$61,020,837	(\$2,388)	0.0%
Attrition (Salary Only)		-	-	(2,328,511)	(2,328,511)	-	0.0%
Employee Benefits Including Attrition		24,661,539	27,536,882	25,706,371	25,708,754	2,383	0.0%
Pandemic Pay		105,036	28,008	-	-	-	-%
Personnel		80,964,267	87,087,720	84,401,085	84,401,080	(5)	0.0%
Other Expenses & Transfers:							
Fuel & Electricity		1,693,579	1,915,490	2,705,474	2,705,474	-	0.0%
Supplies & Services		6,065,790	7,205,912	5,533,838	5,558,990	25,152	0.5%
Shared Services		12,190,200	12,941,675	13,008,877	13,008,877	-	0.0%
Travel		249,624	888,337	936,167	950,976	14,809	1.6%
Memberships, Contributions & Sponsorships		213,088	226,951	172,855	173,202	347	0.2%
Maintenance & Alterations		1,866,305	2,289,720	2,178,531	2,152,204	(26,327)	-1.2%
Interest		554,446	499,259	434,592	434,592	-	0.0%
Depreciation		6,657,299	6,527,585	6,833,820	6,833,820	-	0.0%
Transfers to/(from) MAFES/CES		-	-	-	-	-	-%
Transfers to/(from) MEIF		-	-	-	-	-	-%
Other Expenses & Transfers		34,574	(6,353,067)	787,444	474,191	(313,253)	-39.8%
Unassigned Budget		-	-	(142,522)	(171,488)	(28,966)	20.3%
<b>Total Other Expenses &amp; Transfers</b>		<b>29,524,906</b>	<b>26,141,862</b>	<b>32,449,076</b>	<b>32,120,838</b>	<b>(328,238)</b>	<b>-1.0%</b>
<b>Total Operating Expenses &amp; Transfers</b>		<b>110,489,174</b>	<b>113,229,583</b>	<b>116,850,161</b>	<b>116,521,918</b>	<b>(328,243)</b>	<b>-0.3%</b>
<b>Operating Increase (Decrease)</b>		<b>\$ (1,594,243)</b>	<b>\$ (883,147)</b>	<b>\$ (1,114,955)</b>	<b>\$ (2,789,950)</b>	<b>\$ (1,674,995)</b>	<b>150.2%</b>
<b>Modified Cash Flow</b>							
Operating Increase (Decrease)		\$ (1,594,243)	\$ (883,147)	\$ (1,114,955)	\$ (2,789,950)	\$ (1,674,995)	150.2%
Add Back Depreciation		6,657,299	6,527,585	6,833,820	6,833,820	-	0.0%
Less Capital Expenditures		(893,932)	(2,092,817)	(3,862,463)	(3,862,463)	-	0.0%
Less Capital Reserve Funding		-	(533,986)	-	-	-	-%
Less Debt Service Principal		(1,380,201)	(1,382,832)	(1,369,961)	(1,369,961)	-	0.0%
<b>Net Change Before Other Adjustments &amp; Transfers</b>		<b>2,788,923</b>	<b>1,634,802</b>	<b>486,441</b>	<b>(1,188,554)</b>	<b>(1,674,995)</b>	
Transfer from/(to) Administrative Savings Rsrv		-	-	-	-	-	
Transfer from/(to) Budget Stabilization		-	-	-	-	-	
<b>Net Change Subtotal</b>		<b>2,788,923</b>	<b>1,634,802</b>	<b>486,441</b>	<b>(1,188,554)</b>	<b>(1,674,995)</b>	
Other Strategic Transfers from/(to) Reserves		755,610	1,231,416	-	974,995	974,995	
<b>Net Change in Cash &amp; Reserve Transfers</b>		<b>\$ 3,544,534</b>	<b>\$ 2,866,218</b>	<b>\$ 486,441</b>	<b>\$ (213,559)</b>	<b>\$ (700,000)</b>	

## Board of Trustees Meeting - November 2022 - Attachments

## University of Southern Maine

FY 23 Revision 10/26/22

## Auxiliary

			BASE BUDGET FY23			
	FY21 ACTUALS	FY22 ACTUALS	ORIGINAL	REVISED	BUDGET CHANGE	
<b>Revenues</b>						
Tuition & Fee Revenue	\$ 119,026	\$ (1,499)	\$ -	\$ -	\$ -	-%
Dining Revenue	3,207,126	5,236,664	6,139,013	6,139,013	-	0.0%
Residence Revenue	3,593,375	7,125,676	7,430,747	8,130,747	700,000	9.4%
Tuition Waivers/Scholarships	(334,695)	(513,149)	(450,000)	(450,000)	-	0.0%
Net Student Charges Revenue	6,584,831	11,847,692	13,119,760	13,819,760	700,000	5.3%
State Appropriation	-	-	-	-	-	-%
HEERF Relief - Lost Revenue	1,288,217	5,764,738	-	-	-	-%
Indirect Cost Recovery	-	-	-	-	-	-%
Investment Income/Gifts	-	-	-	-	-	-%
Sales/Services/Auxiliary	720,994	772,517	682,877	682,877	-	0.0%
<b>Total Revenue</b>	<b>8,594,042</b>	<b>18,384,947</b>	<b>13,802,637</b>	<b>14,502,637</b>	<b>700,000</b>	<b>5.1%</b>
<b>Expenses</b>						
Salaries & Wages	\$1,503,478	\$1,859,495	\$1,754,576	\$1,754,576	\$0	0.0%
Attrition (Salary Only)	-	-	-	-	-	-%
Employee Benefits Including Attrition	723,130	830,759	864,563	864,563	-	0.0%
Pandemic Pay	16,256	5,416	-	-	-	-%
Personnel	2,242,865	2,695,670	2,619,139	2,619,139	-	0.0%
Other Expenses & Transfers:						
Fuel & Electricity	740,443	1,037,374	1,003,327	1,003,327	-	0.0%
Supplies & Services	3,421,928	4,860,678	5,132,915	5,145,915	13,000	0.3%
Shared Services	-	-	-	-	-	-%
Travel	1,634	4,873	7,428	7,428	-	0.0%
Memberships, Contributions & Sponsorships	1,992	1,439	2,098	2,098	-	0.0%
Maintenance & Alterations	680,368	644,430	1,102,391	1,102,391	-	0.0%
Interest	938,455	875,571	808,964	808,964	-	0.0%
Depreciation	1,404,204	1,402,932	1,373,303	1,373,303	-	0.0%
Transfers to/(from) MAFES/CES	-	-	-	-	-	-%
Transfers to/(from) MEIF	-	-	-	-	-	-%
Other Expenses & Transfers	1,647,780	6,453,239	1,813,321	1,817,321	4,000	0.2%
Unassigned Budget	-	-	30,740	13,740	(17,000)	-55.3%
<b>Total Other Expenses &amp; Transfers</b>	<b>8,836,804</b>	<b>15,280,537</b>	<b>11,274,487</b>	<b>11,274,487</b>	<b>-</b>	<b>0.0%</b>
<b>Total Operating Expenses &amp; Transfers</b>	<b>11,079,669</b>	<b>17,976,207</b>	<b>13,893,626</b>	<b>13,893,626</b>	<b>-</b>	<b>0.0%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (2,485,626)</b>	<b>\$ 408,740</b>	<b>\$ (90,989)</b>	<b>\$ 609,011</b>	<b>\$ 700,000</b>	<b>-769.3%</b>
<b>Modified Cash Flow</b>						
Operating Increase (Decrease)	\$ (2,485,626)	\$ 408,740	\$ (90,989)	\$ 609,011	\$ 700,000	-769.3%
Add Back Depreciation	1,404,204	1,402,932	1,373,303	1,373,303	-	0.0%
Less Capital Expenditures	(225,000)	(557,330)	(296,447)	(296,447)	-	0.0%
Less Capital Reserve Funding	-	-	-	-	-	-%
Less Debt Service Principal	(1,482,501)	(1,404,485)	(1,472,308)	(1,472,308)	-	0.0%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>(2,788,923)</b>	<b>(150,142)</b>	<b>(486,441)</b>	<b>213,559</b>	<b>700,000</b>	
Transfer from/(to) Administrative Savings Rsv	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>(2,788,923)</b>	<b>(150,142)</b>	<b>(486,441)</b>	<b>213,559</b>	<b>700,000</b>	
Other Strategic Transfers from/(to) Reserves	-	592,056	-	-	-	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ (2,788,923)</b>	<b>\$ 441,913</b>	<b>\$ (486,441)</b>	<b>\$ 213,559</b>	<b>\$ 700,000</b>	

Board of Trustees Meeting - November 2022 - Attachments

University of Southern Maine  
E&G and Auxiliary

FY 23 Revision 10/26/22

			BASE BUDGET FY23			
	FY21 ACTUALS	FY22 ACTUALS	ORIGINAL	REVISED	BUDGET CHANGE	
<b>Revenues</b>						
Tuition & Fee Revenue	\$ 73,185,702	\$ 70,400,694	\$ 73,388,402	\$ 71,385,164	\$ (2,003,238)	-2.7%
Dining Revenue	3,207,126	5,236,664	6,139,013	6,139,013	-	0.0%
Residence Revenue	3,611,644	7,152,344	7,430,747	8,130,747	700,000	9.4%
Tuition Waivers/Scholarships	(16,876,035)	(17,052,879)	(16,733,471)	(16,733,471)	-	0.0%
Net Student Charges Revenue	63,128,436	65,736,823	70,224,691	68,921,453	(1,303,238)	-1.9%
State Appropriation	46,874,076	47,714,871	51,147,985	51,147,985	-	0.0%
HEERF Relief - Lost Revenue	1,308,979	9,877,456	-	-	-	-%
Indirect Cost Recovery	3,777,125	4,221,959	3,525,000	3,525,000	-	0.0%
Investment Income/Gifts	132,704	113,045	113,769	113,769	-	0.0%
Sales/Services/Auxiliary	2,267,654	3,067,229	4,526,398	4,526,398	-	0.0%
<b>Total Revenue</b>	<b>117,488,973</b>	<b>130,731,382</b>	<b>129,537,843</b>	<b>128,234,605</b>	<b>(1,303,238)</b>	<b>-1.0%</b>
<b>Expenses</b>						
Salaries & Wages	\$57,701,171	\$61,382,325	\$62,777,801	\$62,775,413	(\$2,388)	0.0%
Attrition (Salary Only)	-	-	(2,328,511)	(2,328,511)	-	0.0%
Employee Benefits Including Attrition	25,384,669	28,367,641	26,570,934	26,573,317	2,383	0.0%
Pandemic Pay	121,292	33,424	-	-	-	-%
Personnel	83,207,132	89,783,390	87,020,224	87,020,219	(5)	0.0%
Other Expenses & Transfers:						
Fuel & Electricity	2,434,022	2,952,865	3,708,801	3,708,801	-	0.0%
Supplies & Services	9,487,718	12,066,590	10,666,753	10,704,905	38,152	0.4%
Shared Services	12,190,200	12,941,675	13,008,877	13,008,877	-	0.0%
Travel	251,257	893,210	943,595	958,404	14,809	1.6%
Memberships, Contributions & Sponsorships	215,080	228,390	174,953	175,300	347	0.2%
Maintenance & Alterations	2,546,673	2,934,150	3,280,922	3,254,595	(26,327)	-0.8%
Interest	1,492,901	1,374,830	1,243,556	1,243,556	-	0.0%
Depreciation	8,061,503	7,930,517	8,207,123	8,207,123	-	0.0%
Transfers to/(from) MAFES/CES	-	-	-	-	-	-%
Transfers to/(from) MEIF	-	-	-	-	-	-%
Other Expenses & Transfers	1,682,355	100,172	2,600,765	2,291,512	(309,253)	-11.9%
Unassigned Budget	-	-	(111,782)	(157,748)	(45,966)	41.1%
<b>Total Other Expenses &amp; Transfers</b>	<b>38,361,710</b>	<b>41,422,400</b>	<b>43,723,563</b>	<b>43,395,325</b>	<b>(328,238)</b>	<b>-0.8%</b>
<b>Total Operating Expenses &amp; Transfers</b>	<b>121,568,842</b>	<b>131,205,790</b>	<b>130,743,787</b>	<b>130,415,544</b>	<b>(328,243)</b>	<b>-0.3%</b>
<b>Operating Increase (Decrease)</b>	<b>\$ (4,079,869)</b>	<b>\$ (474,408)</b>	<b>\$ (1,205,944)</b>	<b>\$ (2,180,939)</b>	<b>\$ (974,995)</b>	<b>80.8%</b>
<b>Modified Cash Flow</b>						
Operating Increase (Decrease)	\$ (4,079,869)	\$ (474,408)	\$ (1,205,944)	\$ (2,180,939)	\$ (974,995)	80.8%
Add Back Depreciation	8,061,503	7,930,517	8,207,123	8,207,123	-	0.0%
Less Capital Expenditures	(1,118,932)	(2,650,147)	(4,158,910)	(4,158,910)	-	0.0%
Less Capital Reserve Funding	-	(533,986)	-	-	-	-%
Less Debt Service Principal	(2,862,702)	(2,787,317)	(2,842,269)	(2,842,269)	-	0.0%
<b>Net Change Before Other Adjustments &amp; Transfers</b>	<b>0</b>	<b>1,484,660</b>	<b>-</b>	<b>(974,995)</b>	<b>(974,995)</b>	
Transfer from/(to) Administrative Savings Rsrv	-	-	-	-	-	
Transfer from/(to) Budget Stabilization	-	-	-	-	-	
<b>Net Change Subtotal</b>	<b>0</b>	<b>1,484,660</b>	<b>-</b>	<b>(974,995)</b>	<b>(974,995)</b>	
Other Strategic Transfers from/(to) Reserves	755,610	1,823,471	-	974,995	974,995	
<b>Net Change in Cash &amp; Reserve Transfers</b>	<b>\$ 755,610</b>	<b>\$ 3,308,131</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

Resolution

## FINANCING, ESPC AND PROJECT AUTHORIZATION

WHEREAS, the Board of Trustees (the “Board”) of the University of Maine System (the “System”) desires to authorize the System, acting through the University of Maine at Farmington (“UMF”), to execute and implement an Energy Savings Performance Contract (“ESPC”) with the System’s Energy Service Company, Trane (the “ESCO”), to provide for a comprehensive package of energy conservation measures (“ECMs”) at the UMF campus, to save energy, reduce energy and operational costs, reduce carbon emissions, and improve the learning environment for students in a manner that is structured as cost neutral, as more particularly described in the Agenda Item Summary to which this financing resolution is attached, which is incorporated herein by reference (the “Projects”); and

WHEREAS, the Board desires to authorize the System to enter into a lease transaction (the “Lease”) with Banc of America Public Capital Corp (the “Lender”), pursuant to its existing Amended and Restated Master Equipment Lease/Purchase Agreement dated May 1, 2018, together with the First Amendment to Amended and Restated Master Lease/Purchase Agreement dated November 19, 2019, with the Lender, to finance the Projects and to provide for any necessary capitalized interest, reserves and costs of issuance; and

WHEREAS, the System is authorized to enter into the Lease pursuant to the provisions of 20-A MRSA §§10952, 10953 and 10955 and other provisions of the Maine Revised Statutes Annotated, Chapters 411 and 412, as amended (the “Act”); and

WHEREAS, the Board finds that the financing of all or a portion of the costs of the Projects with proceeds of the Lease constitutes an “assured revenue financing transaction” pursuant to the provisions of 20-A MRSA §10953, as amended; and

WHEREAS, pursuant to 20-A MRSA §10952(8), as amended, the System, as authorized by the Board, is authorized to make, enter into, execute, deliver and amend any and all contracts, agreements, leases, instruments and documents and perform all acts and do all things necessary or convenient to acquire, construct, reconstruct, improve, equip, finance, maintain and operate projects and to carry out the powers granted pursuant to the Act, or reasonably implied from those powers;

NOW, THEREFORE, be it hereby voted and resolved by the Board as follows:

RESOLVED, That the System is authorized to execute and implement an ESPC with the ESCO for the Projects, and the Treasurer of the System (the “Treasurer”) is hereby authorized and empowered from time to time and on behalf of the System to execute and delivery such documents and agreements, including but not limited to the ESPC and an Energy Service Assessment (“ESA”), as the Treasurer may deem necessary or convenient or desirable in connection therewith. Such agreements, documents and instruments may (a) contain such terms and provisions, not contrary to the general tenor hereof, as the Treasurer may approve, his approval to be conclusively evidenced by his execution thereof, (b) be

delivered under the seal of the System and (c) be attested by the System's Clerk or General Counsel; and further;

RESOLVED, That pursuant to the provisions of 20-A MRSA §§10952, 10953 and 10955, as amended, and all other authority thereto enabling, and to provide funds for (a) the planning, design, acquisition, construction, reconstruction, improvement, renovation, rehabilitation and equipping of the Projects, (b) any capitalized interest on, reserves for and costs of issuance in connection with the Lease and (c) any other purpose authorized by law, the Treasurer is hereby authorized and empowered from time to time and in the name and on behalf of the System to borrow an aggregate amount not to exceed \$11,000,000, and the Treasurer be and is hereby authorized and empowered, in the name of and on behalf of the System, to execute and deliver such lease/purchase agreements, addendum thereto, escrow or restricted account agreements, investment agreements, financial advisory agreements, investment advisory agreements, agreements with bond counsel and other agreements, documents and instruments as the Treasurer may deem necessary or convenient or desirable with respect to such borrowing. Such agreements, documents and instruments may (a) contain such terms and provisions, not contrary to the general tenor hereof, as the Treasurer may approve, his approval to be conclusively evidenced by his execution thereof, (b) be delivered under the seal of the System and (c) be attested by the System's Clerk or General Counsel; and further

RESOLVED, That pursuant to the provisions of 20-A MRSA §10955(3), as amended, and all other authority thereto enabling, and to provide funds for the purposes approved above, the Board hereby approves and authorizes, as evidence of the borrowing approved above, the execution and delivery of the Lease in the aggregate principal amount not to exceed \$11,000,000 with the Lender; the Lease to mature and be payable at such times and in such amounts, to bear interest at such rate(s), which may be taxable or tax-exempt or a combination thereof, and to contain such other terms and provisions, not inconsistent herewith, as may be approved by the Treasurer; the Lease and all related documents to be signed by the Treasurer, and to be in such form and contain such other terms and provisions as the Treasurer may approve, his approval to be conclusively evidenced by his execution thereof; and further

RESOLVED, That the Treasurer or the Vice President & Controller, or any one of them, be and hereby are, authorized on behalf of the System, from time to time, to acquire, purchase, sell, redeem, liquidate, terminate or transfer securities or other instruments constituting investments of the proceeds of the Lease and to negotiate, enter into, execute in the name of the System and deliver on behalf of the System all investment, banking, brokerage, financial advisory, investment advisory and other agreements and instruments as are necessary or convenient to investment and financial management of the proceeds of the Bonds, all on such terms and conditions as such authorized officer shall determine are necessary or convenient for financing of the Projects, such determination to be conclusively

evidenced by execution or acquisition of such agreements and instruments by such authorized officer; and further

RESOLVED, That the Chancellor of the System, the Treasurer, and, with the express written approval of the Treasurer, the Clerk, the Controller, the General Counsel, or the Chief Business Officer of UMF (with respect to the ESPC and ESA only), or any one of them, be and hereby are, authorized and empowered in its name and on its behalf, to do or cause to be done any act or thing, and to negotiate, enter into, execute in the name of the System or UMF, as applicable, deliver on behalf of the System or UMF, as applicable, assign, transfer, modify or terminate any agreement or instrument, which any such officer may determine to be necessary or convenient or desirable with respect to the ESPC and the Lease, the planning, design, acquisition, construction, reconstruction, improvement, renovation, rehabilitation and equipping of the Projects and the expenditure, investment and management of the proceeds of the Lease and that all acts and things done by the Treasurer in furtherance of the purposes of this Resolution prior to the date hereof are hereby ratified and confirmed; and further

RESOLVED, That the carrying out of the Projects is hereby approved; and further

RESOLVED, The System covenants that it will, so long as the Lease is outstanding, establish, impose and collect tuition, fees and charges for its educational services, its auxiliary enterprises, including dormitory housing, food service and sale of textbooks, for use of its plant and for all other services and goods provided by the System, which tuition, fees and charges, together with other available moneys, in each fiscal year of the System, will be sufficient to permit the performance of all the covenants in, and requirements of the System under, the Lease, including the prompt payment of all rental payments on the Lease as and when due, the prompt payment of principal of and interest on all outstanding System bonds as and when due and the prompt payment and performance of all other obligations as and when due; and further

RESOLVED, That the Lease shall be secured by such assignments, pledges or commitments of funds or revenues, other than appropriations from the State of Maine, as may be approved by the Treasurer; and further

RESOLVED, That the Treasurer be and is hereby authorized to covenant on behalf of the System and for the benefit of the Lender that, except as hereafter authorized in this Resolution and in accordance with 20-A MRSA §10952(10), the System will take whatever steps, and refrain from taking any action, that may be necessary or appropriate to assure that the interest component of the rental payments on the Lease will remain exempt from federal and applicable state income taxes, as applicable; and further

RESOLVED, That the Treasurer be and is hereby authorized in accordance with 20-A MRSA §10952(10) to agree and consent to the inclusion of the interest component of the rental payments on the Lease, under the United States Internal Revenue Code of

1986 or any subsequent corresponding internal revenue law of the United States, in the gross income of the Lender to the same extent and in the same manner that the interest on bills, bonds, notes or other obligations of the United States is includable in the gross income of the holders of such bills, bonds, notes or other obligations under the United States Internal Revenue Code or any such subsequent law; and further

This Resolution shall take effect immediately.

ADOPTED: November 14, 2022



## Attachment A

### Summary of Work

	ECM or FIM	Admissions Office	Alumni Theater	Brinkman House	Central Heat Plant	Computer Center	Dakin Hall	Dearborn Gym	Dining Center	Education Center	Emery Community Arts Center
1	Lighting Upgrade	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	Building Envelope Improvement	✓	✓	✓		✓			✓	✓	
3	Mechanical Insulation	✓	✓		✓	✓	✓		✓		✓
4	Water Conservation	✓	✓	✓			✓	✓	✓	✓	✓
5	BAS Upgrade	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6	HVAC Equipment Replacement				✓	✓	✓		✓	✓	
7	Duct Sealing					✓					
8	Kitchen Hood Controls								✓		
10	Second Biomass Boiler	•	•	•	✓	•	•	•	•	•	•
11	Central Plant Generator										
12	Trane Intelligent Services & BPP Install				✓						

	ECM or FIM	Ferro Alumni House	Fitness and Rec Center	Francis A. Black Hall	Franklin Hall	Lockwood Hall	Look House	Mainely Outdoors	Mallett hall	Mantor Library	Marketing	Merrill Hall
1	Lighting Upgrade	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	Building Envelope Improvement	✓			✓		✓	✓		✓		
3	Mechanical Insulation	✓	✓	✓		✓		✓	✓	✓		✓
4	Water Conservation	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
5	BAS Upgrade	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6	HVAC Equipment Replacement	✓	✓	✓						✓		✓
7	Duct Sealing									✓		
8	Kitchen Hood Controls											
10	Second Biomass Boiler											
11	Central Plant Generator											
12	Trane Intelligent Services & BPP Install											

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	ECM or FIM	Olsen Student Center	Preble Hall	President's House	Psychology	Public Safety	Purinton hall	Ricker Addition	Ricker Hall	Roberts Learning Center	Scott Hall	Stone Hall
1	Lighting Upgrade	✓	✓		✓	✓	✓	✓	✓	✓		✓
2	Building Envelope Improvement	✓				✓						
3	Mechanical Insulation	✓	✓		✓	✓	✓			✓	✓	✓
4	Water Conservation	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
5	BAS Upgrade	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
6	HVAC Equipment Replacement	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7	Duct Sealing	✓								✓		
8	Kitchen Hood Controls	✓										
10	Second Biomass Boiler											
11	Central Plant Generator											
12	Trane Intelligent Services & BPP Install											

### **ESPC Scope of Work Summary for Campus Buildings**

#### **HVAC Retrofit**

Below is a list of campus buildings and brief summaries for the HVAC Retrofit scopes of work.

- Central Plant – HVAC Retrofit (control room)
  - Small equipment replacements.
- Computer Center - HVAC Retrofit
  - Replacement of rooftop unit, air-handler, and cabinet heaters.
- Dakin Hall – Zone Valves to Support BAS Retrofit
  - Zone valve replacements.
- Olsen Student/Dining Center – HVAC Retrofit
  - Replace rooftop unit, condensing unit, air-handler, and makeup air unit, and hydronic coils.
- Education Center - HVAC Retrofit
  - Replace heat pumps.
- Ferro Alumni House - HVAC Retrofit
  - Replace ductless spit system.
- Fitness and Rec Center - HVAC Retrofit
  - Replace air handler and split AC system.
- Francis A. Black Hall - HVAC Retrofit and Zone Valves to support BAS Retrofit
  - Replace energy recovery ventilators and zone valves. Add circulator VFDs.
- Mantor Library – HVAC Retrofit
  - Replace rooftop unit and VAV boxes.
- Merrill Hall - HVAC Retrofit
  - Replace air handlers, condensing units, unit heater, and control valves.
- Preble/Ricker/Thomas Hall

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- Replace vertical heat pumps, unit heaters, and add pump VFDs.
- Presidents House
  - Replace mini-split heat pump.
- Psychology - VFD Retrofit
  - Add VFD to air-handler fan.
- Public Safety – HVAC Improvements
  - Install mini-split heat pump
- Purington Hall – HVAC Retrofit
  - Replace hot water tanks, DHW zone pumps, and modify piping.
- Roberts Learning Center - HVAC Retrofit
  - Replace rooftop units, VAV boxes, and cabinet heaters.
- Scott Hall - HVAC Retrofit
  - Replace energy recovery ventilator and hydronic coil.
- Stone Hall - Zone Valves to Support BAS Retrofit
  - Install zone valves.

### **Second Biomass Boiler System**

Provision and installation of a second biomass boiler at the central plant to provide both additional capacity and redundancy to the existing biomass plant. The new boiler will eliminate the functional need for injection boilers to operate during the peak heating season and will be the primary heating boiler under most conditions. The new unit will provide both fuel switch savings; and will add to the total annual operating days for the central plant under light load conditions during shoulder seasons and summer months to heat domestic hot water. Included also will be miscellaneous system equipment, thermal metering, and connection to the BAS.

### **Building Automation System Upgrade**

This ECM proposes to upgrade the heating and cooling system controls to varying degrees in (30+) campus facilities and implement water and meter electric usage metering. The intent is to provide energy metering for these facilities and improved comfort control and energy efficiency.

The BAS upgrade scope of work includes a variety of control system end device replacements, control device upgrades, building level control upgrades, networking/communications upgrades, enterprise level system programming, and interface graphics utilizing one platform.

Below is a list of campus buildings for the BAS Upgrade scope of work.

- Admissions Office
- Alumni Theater (Metering only)
- Brinkman House
- Central Plant
- Fusion / Computer Center
- Dakin Hall
- Dearborn Gym (Metering only)
- Dining Center
- Emery Arts
- Education Center
- Ferro Alumni House

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- Fitness and Rec Center
- Francis A. Black Hall
- Franklin Hall
- Lockwood Hall (Integration)
- Look House
- Mainely Outdoors
- Mallett Hall
- Mantor Library
- Marketing
- Merrill Hall
- Olsen Student Center
- Preble Hall
- Presidents House
- Psychology
- Public Safety
- Purington Hall
- Ricker Addition
- Ricker Hall
- Roberts Learning Center
- Scott Hall
- Stone Hall

### **Energy Meters, Building Analytics, and Building Performance Package**

The installation of energy metering dashboards, building analytics, and performance optimization strategies will allow for building system remote monitoring, continued analytics, and continuous commission and HVAC control system optimization. All control system points that are networked through the BAS which controls HVAC will be tied into the Intelligent Services Platform installed by Trane. Performance reports will be generated by Trane through this system to document building system performance, system diagnostics, and new opportunities that have been discovered.

### **HVAC Duct Sealing**

This ECM provides for the sealing of distribution ductwork located in one facility that has been identified as leaking and contributing to excess energy consumption. Duct sealing to eliminate this leakage will reduce the energy consumption through lower VFD fan speeds and outside air ventilation heating/cooling load.

Below is a list of campus buildings for the Duct Sealing scope of work.

- Robert's Learning Center

### **Install Kitchen Hood Controls**

Trane proposes to install new kitchen hood exhaust controls for the Dining center hood exhaust and make up air unit fans. The controls will interface and be viewable in the BAS for enable scheduling and monitoring. Equipment includes the installation of makeup air unit and exhaust fan VFDs, smoke and vapor sensors in ducts, and control system points.

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Below is a list of campus buildings for the Kitchen Hood Controls scope of work.

- Dining Center

### **LED Lighting Upgrade**

The proposed lighting improvements consist of various interior and exterior LED retrofits and lighting controls. The retrofit scope includes (11) buildings that have had previous LED lighting upgrades. These (11) buildings have over 50% of fixtures remaining to be upgraded. The previously exterior LED lighting upgrades installed by the University will also remain. This includes the (76) pole mounted and wall mounted area light fixtures (Shoebox, Area Light, Flood, Wallpack) retrofitted with Corn Cobb LED lamps.

Below is a list of campus buildings for the LED Lighting scope of work.

- Admissions Office
- Alumni Theater
- Brinkman House
- Central Plant
- Fusion / Computer Center
- Dakin Hall
- Dearborn Gym
- Dining Center
- Emery Arts
- Education Center
- Ferro Alumni House
- Fitness and Rec Center
- Francis A. Black Hall
- Franklin Hall
- Lockwood Hall
- Look House
- Mainely Outdoors
- Mallett Hall
- Mantor Library
- Marketing
- Merrill Hall
- Olsen Student Center
- Preble Hall
- Psychology
- Public Safety
- Purington Hall
- Ricker Addition
- Ricker Hall
- Roberts Learning Center
- Stone Hall

### **Building Envelope Improvements**

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The proposed Building Envelope Improvements include caulking, spray foam insulation, ground covering barriers, retrofit of and new attic hatches, and pulldown stairs.

Below is a list of campus buildings for the Building Envelope Improvements scope of work.

- Admissions
- Alumni Theatre
- Brinkman House
- Computer Center
- Education Center
- Ferro Alumni House
- Franklin Hall
- Look House
- Mainely Outdoor
- Mantor Library
- Olsen Student Center
- Public Safety

### **Mechanical Pipe Insulation**

The proposed mechanical insulation improvements consist of insulating various pipe, pipe fittings, and valves.

Below is a list of campus buildings for the Mechanical Pipe Insulation scope of work.

- Admissions Office
- Alumni Theater
- Central Plant
- Fusion / Computer Center
- Dakin Hall
- Emery Arts
- Ferro Alumni House
- Fitness and Rec Center
- Francis A. Black Hall
- Lockwood Hall
- Mainely Outdoors
- Mallett Hall
- Mantor Library
- Marketing
- Merrill Hall
- Olsen Student Center
- Preble Hall
- Psychology
- Public Safety
- Purington Hall
- Roberts Learning Center

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- Scott Hall
- Stone Hall

### **Water Conservation**

The proposed upgrades to water fixtures at campus buildings include the installation of low flow toilets fixtures/valves, low flow urinal flush valves, low flow faucet devices, and low flow shower heads.

Below is a list of campus buildings for the Water Conservation scope of work.

- Admissions Office
- Alumni Theater
- Brinkman House
- Dakin Hall
- Dearborn Gym
- Emery Arts
- Education Center
- Ferro Alumni House
- Fitness and Rec Center
- Francis A. Black Hall
- Franklin Hall
- Lockwood Hall
- Look House
- Mallett Hall
- Mantor Library
- Marketing
- Merrill Hall
- Olsen Student Center
- Preble Hall
- Psychology
- Public Safety
- Purington Hall
- Ricker Addition
- Ricker Hall
- Roberts Learning Center
- Scott Hall
- Stone Hall

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## UNIVERSITY OF MAINE SYSTEM

### Policy Manual

**DRAFT**  
**8/11/22**

#### HUMAN RESOURCES AND LABOR RELATIONS

##### Section 401 General Equal Opportunity

Effective: 11/18/71

Last Revised: 01/23/06; 5/23/11; 7/17/2017

Responsible Office: Human Resources

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#### Policy Statement:

In complying with the letter and spirit of applicable laws and pursuing its own goals of diversity, the University of Maine System does not discriminate on the grounds of race, color, religion, sex, sexual orientation, transgender status, gender, **gender identity or expression**, **ethnicity**, national origin, citizenship status, **familial status**, **ancestry**, age, disability **physical or mental**, genetic information, or veterans **or military** status in employment, education, and all other programs and activities. The University provides reasonable accommodations to qualified individuals with disabilities upon request.

The University will regard freedom from discrimination and discriminatory harassment as an individual employee and student right which will be safeguarded as a matter of policy. Any employee or student will be subject to disciplinary action for violation of this policy. Retaliation against anyone who makes a complaint of discrimination or harassment or who is involved in a complaint process will not be tolerated.

#### Procedures:

Affirmative action plans for the various institutions and organizational units of the University System must be approved by the University President and Chancellor. Copies of the current institutional plan shall be on file at each University in the Office of Human Resources.

#### Related Documents:

Procedure for Accommodating Individuals with Disabilities  
Equal Opportunity Complaint Procedure



## UNIVERSITY OF MAINE SYSTEM

### Policy Manual

**DRAFT**

7/15/22

#### ACADEMIC AFFAIRS

#### **Section 315 Commemorative Naming and Renaming of Academic Units and Programs**

Effective:

Last Revised: 7/15/22 DRAFT

Responsible Office: Academic Affairs

#### **Policy Statement:**

This Policy describes the University of Maine System (UMS) process and criteria for Commemorative Naming of Academic Units and Programs. This Policy does not apply to the naming of sites and centers of a campus. For example, the UM Hutchinson Center, UMPI Houlton Higher Education Center, or UMA Saco Center. Naming of Physical Facilities does not apply to this Policy and shall be considered under Board of Trustees Policy 803 *Naming and Renaming of Physical Facilities*.

#### **1. Definitions.**

- a. The term “academic unit or program” for the purpose of this Policy is defined as either:
  - i. an academic school, college, department, area of study or similar entity within a UMS University or institution. For example: School of Music, School of Marine Sciences, Maine Business School, an aviation program, or a conservation law enforcement program; or
  - ii. a research, public policy center, public outreach center, entity or institute with a UMS institution. For example: The Margaret Chase Smith Policy Center, Climate Change Institute, Cutler Institute, Southworth Planetarium or cooperative extension.
- b. The term “commemorative name” or “commemorative naming” means the name or the process for naming, renaming, or amending or removing the name of an honorific, memorial or benefactor named academic unit or program.
- c. The term “honoree” includes any individual or legal entity after which an academic unit or program is named, whether honorific, memorial or benefactor named.
- d. The term “legal entity” includes any for-profit business or non-profit organization, foundation, foundation, trust, or any similar non-University organization.
- e. The term “university” includes all universities within the UMS as well as the University of Maine School of Law (Law School).
- f. The term “honorific or memorial naming” means the academic units or programs may be named to honor someone, living or dead, who embodies the University's ideals and reputation through distinguished accomplishments that advance the University and/or the public good. Individuals currently serving on the UMS Board of Trustees or campus Boards of Visitors, current elected officials, and current University or UMS employees are not eligible for a naming opportunity except in extraordinary circumstances.
- g. The term “benefactor named” means an individual or Legal Entity donor may be recognized when they have provided extraordinary philanthropy toward an academic unit or program as defined below. Each University may offer such opportunities to acknowledge donors’ roles in advancing its mission and so that as an institution the University can express its deep appreciation in a concrete manner. Naming opportunities are not transactional in nature; they are not offered “for sale.” The

President of the University or Dean of the Law School will advise what is considered “extraordinary philanthropy” as related to each naming opportunity. Consideration shall be given to visibility and prestige of the academic unit or program, current market, donor interest, and campus and peer institution comparables.

2. **Authority.** The authority for Commemorative Naming of any Academic Unit or Program in the UMS shall be reserved to the UMS Board of Trustees, acting after receiving the proposal from the Chancellor following the process described below in the section titled Commemorative Naming Process. Honorees should be informed through any naming discussions that final approval for Commemorative Naming of all academic units or programs rest with the UMS Board of Trustees. With the exception of areas outlined in this Policy and Board Policy 803, naming of any other campus area or object rests with the President of that University, or Dean of the University of Maine School of Law.
3. **Commemorative Naming Criteria.** A Commemorative Name is a symbolic and public statement, reflecting the highest values and ideals of the University and its community. Generally, Academic Units or Programs are named for distinguished individuals who have made extraordinary contributions of a scholarly, professional, or public service nature related to the University’s mission. In some cases, Academic Units or Programs may be named for benefactors or donors who advance the University’s mission through significant philanthropy. While Academic Units or Programs may be informally assigned a working or administrative name at the campus level, the UMS Board of Trustees shall formally approve commemorative names for all academic units or programs, which will fall into one of two categories: honorific/memorial or benefactor named.
4. **Morals Clause.** The UMS depends on public goodwill to accomplish its educational mission and to attract governmental and philanthropic support. As commemorative naming of an academic unit or program is a public honor that implicitly associates the values, character and reputation of the honoree with the UMS, it must be undertaken with well-considered judgment. Therefore, all gift agreements for naming academic units or programs shall, without exception, include a morals clause. Should the UMS Board of Trustees find that a designated commemorative name brings discredit upon the University (as explained in items 7 and 8 below), the morals clause must state that the unusual circumstances leading to renaming shall not impose financial responsibilities on the UMS or the individual University affiliated with the academic unit or program at-issue.
5. **Commemorative Naming Process.** The process of commemorative naming of an academic unit or program must include, at a minimum, the following:
  - a. Before forwarding a name to the Chancellor, the President of the University or Dean of the Law School shall submit the commemorative naming request to the Vice Chancellor of Academic Affairs in writing after thorough consultation with appropriate campus committees and stakeholders; and after thorough due diligence to avoid potential areas of concern or conflicts of interest.
  - b. After receiving written approval from the Vice Chancellor of Academic Affairs, the President or Dean of the Law School will submit the naming request to the Chancellor
  - c. After approval by the Chancellor, the request should be forwarded to the appropriate UMS Board of Trustees Committee for approval.
  - d. If approved by the UMS Board of Trustees Committee, the recommendation will be presented to the full UMS Board of Trustees for consideration.

- e. For Benefactor Named Academic Units or Programs, publicity associated with the gift shall not take place until and unless the University has received an executed gift agreement, such as press releases. It is recommended that public demonstrations of naming, such as signage, not occur until at least 20% of pledge payments toward the total gift commitment have been received.
  - f. Exceptions to these guidelines will be brought forward by the Chancellor to the UMS Board of Trustees.
6. **Duration of Commemorative Naming.** The commemorative naming of an academic unit or program within an institution of higher education is the highest honor, generally granted for the useful life of the entity. The University, with UMS Board of Trustees approval, may deem the naming period concluded in certain circumstances, however, including but not limited to:
- a. If the purpose for which the commemorative named academic unit or program is to be significantly altered or eliminated; or
  - b. The period of time of the commemorative naming specified in the gift agreement has expired.

The appropriate University representative will make all reasonable efforts to inform the original Honorees in advance of the commemorative naming period concluding. The University may provide alternate recognition as may be appropriate in honor of the original gift.

7. **Removal of Commemorative Naming.** The UMS Board of Trustees reserves the right to remove a commemorative name under extraordinary circumstances when the continued use of the honoree's name would compromise the public trust and reflect adversely upon the university and/or UMS and its reputation.

Additionally, in the case of a benefactor named academic unit or program, the UMS Board of Trustees reserves the right to remove a commemorative name if the Honoree fails to fulfill the terms of the gift that is recognized by the name. The appropriate University representative will make all reasonable efforts to inform the original Honorees in advance of the commemorative naming period concluding. The University may provide alternate recognition as appropriate in honor of the original gift.

8. **Commemorative Name Change or Removal Process.** The change or removal of a commemorative name must not be undertaken lightly. The process must be approached with respect for the considered judgments of the past, especially when the original naming was decided-upon by the contemporaries of an honoree, and with self-awareness by the individuals asked to consider removing a name, of the fallibility of their own judgments. The process must include, at a minimum, the following:
- a. Proposals for change or removal of commemorative names shall be initiated by the President of the University or Dean of the Law School with which the academic unit or program is affiliated, appointing a team or task force to conduct a campus-level review. The review should solicit perspectives from diverse stakeholders and public comment and summarize the findings, including the grounds for change or removal of the commemorative name, in a formal, written report to the respective President or Dean of the Law School.
  - b. After receiving written approval from the Vice Chancellor of Academic Affairs, the President or Dean of the Law School will submit the request to the Chancellor

- c. After approval by the Chancellor, the request should be forwarded to the appropriate UMS Board of Trustees Committee for approval.
- d. If approved by the appropriate UMS Board of Trustees Committee, the recommendation will be presented to the full UMS Board of Trustees for consideration.
- e. Upon the removal of a commemorative name, the name may revert to the general name of the academic unit or program. Any future commemorative naming will follow the process outlined in this Policy.

Related Documents:

Board Policy 711 *Named Chairs and Professorships*

Board Policy 803 *Naming and Renaming of Physical Facilities*

## UNIVERSITY OF MAINE SYSTEM

### Policy Manual

**Proposed Revisions  
noted in red text.**

7/17/22

#### FACILITIES

##### Section 803 Naming and Renaming of Physical Facilities

Effective: 04/10/70

Last Revised: 03/18/02; 05/17/99; 3/22/21

Responsible Office: Facilities

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#### Policy Statement:

1. **Definition.** The term “physical facility” is defined as a building or assembly of buildings enclosing or defining an occupiable space or activity area. For the purposes of this Policy, this definition includes major additions and renovated structures, but does not include interior spaces within buildings, such as lobbies, auditoria, dining and function rooms, classrooms, and offices, exterior campus spaces such as fields, terraces, greens, courtyards, gardens, or athletic fields, or physical objects such as fixtures and equipment. Naming opportunities may include new facilities that are to be constructed or acquired, existing facilities that are undergoing major or minor renovations, or existing facilities that are not undergoing renovations.
2. **Authority.** The authority for naming any physical facility in the University of Maine System (UMS) shall be reserved to the Board of Trustees, acting after receiving the proposal from the Chancellor at the recommendation of a President. Donors, honorees, or benefactors should be informed through any naming discussions that final naming approval for all University facilities rests with the Board of Trustees. Naming of any other campus area or object rests with the President of that University. For naming of academic units and programs, see Board of Trustees Policy 315 *Commemorative Naming and Renaming of Academic Units and Programs*.
3. **Commemorative Naming Criteria.** A building name is a symbolic and public statement, reflecting the highest values and ideals of the University and its community. Generally, facilities are named for distinguished individuals who have made extraordinary contributions of a scholarly, professional, or public service nature related to the university’s mission. In some cases, buildings may be named for benefactors or donors who advance the university’s mission through significant philanthropy. While facilities may be informally assigned a working or administrative name at the campus level, the UMS Board of Trustees shall formally assign commemorative names, which fall into two categories: honorific or memorial naming and benefactor naming.
  - a. Honorific or memorial naming: Facilities may be named to honor someone, living or dead, who embodies the university’s ideals and reputation through distinguished accomplishments that advance the university and/or the public good. Serving Trustees, current elected officials, and current UMS employees are not eligible for a naming opportunity except in extraordinary circumstances.

- b. Benefactor naming: A donor may be recognized when a person, organization or corporation has provided substantial funding for a facility or other entity as defined below. Each University may offer such opportunities to acknowledge donors' roles in advancing its mission and so that as an institution the university can express its deep appreciation in a concrete manner. Naming opportunities are not transactional in nature; they are not offered "for sale." The university president will advise what is considered "substantial funding" based on the project and the naming opportunities. Consideration shall be given to the visibility and use of the space, current market, donor interest, and campus and peer institution comparables. Criteria shall include:
- i. New Construction (which may include maintenance endowments): Gift amounts shall provide a substantial portion of the project's total cost.
  - ii. Existing Facilities: The gift(s) shall provide a substantial amount of funding for maintenance, repairs, and/or enhancement or renovation of a facility or space.
4. **Morals Clause.** The UMS depends on public goodwill to accomplish its educational mission and to attract governmental and philanthropic support. As naming a facility is a public honor that implicitly associates the values, character and reputation of the honoree with the UMS, it must be undertaken with well-considered judgment. Therefore, all gift agreements for naming physical facilities shall, without exception, include a morals clause. Should the UMS Board of Trustees find that a designated name brings discredit upon the university (as explained in items 7 and 8 below), the morals clause ~~should~~ **must** state that the unusual circumstances leading to renaming shall not impose financial responsibilities on the UMS or the individual campus.
5. **Naming Process.** ~~Recommendations to the Trustees for names of physical facilities shall be made by the Chancellor, after receiving a recommendation from the President, after consultation with such campus committees as may be established for this purpose. Before forwarding a name to the Board for consideration, the university shall undertake a thorough degree of due diligence to avoid potential areas of concern or conflicts of interest.~~ **The process of naming and renaming of physical facilities must include, at a minimum, the following:**
- a. **Before forwarding a name or renaming to the Chancellor, the President shall submit the request to the Vice Chancellor of Academic Affairs in writing after thorough consultation with appropriate campus committees and stakeholders; and after thorough due diligence to avoid potential areas of concern or conflicts of interest.**
  - b. **After receiving written approval from the Vice Chancellor of Academic Affairs, the President will submit the naming request to the Chancellor.**
  - c. **After approval by the Chancellor, the request should be forwarded to the appropriate UMS Board of Trustees Committee for approval.**
  - d. **If approved by the UMS Board of Trustees Committee, the recommendation will be presented to the full UMS Board of Trustees for consideration.**
  - e. **For benefactor named, a** ~~A~~ **commitment to name a facility associated with a gift shall not be executed – e.g., building signage not installed – until and unless the University has received an executed gift agreement and 50% of pledge payments towards the total gift commitment have been received.**

- f. The Chancellor may recommend exceptions to any of these guidelines under unusual circumstances for authorization by the Board of Trustees.

6. **Duration of Naming.** Naming for an honoree or a donor is generally granted for the useful life of the entity. The University, **with Board of Trustees approval**, may deem the naming period concluded in certain circumstances, including but not limited to:
  - a. If the purpose for which the named entity is or needs to be significantly altered, is no longer needed/ceases to exist.
  - b. If a physical entity is replaced, significantly renovated or no longer habitable.
  - c. The period of time of the naming specified in the gift agreement has expired.

The appropriate University representative will make all reasonable efforts to inform in advance the original donors or honorees when the naming period is deemed concluded. The University may provide alternate recognition as may be appropriate in honor of the original gift.

7. **Removal of Naming.** The UMS Board of Trustees reserves the right to remove a name from a facility under extraordinary circumstances when the continued use of the honoree's name would compromise the public trust and reflect adversely upon the university and/or University of Maine System and its reputation.

Additionally, in the case of a naming associated with a gift, the UMS Board of Trustees reserves the right to remove a name from a facility if the donor fails to fulfill the terms of the gift that is recognized by a naming. The appropriate University representative will make all reasonable efforts to inform in advance the original donors or honorees when the naming period is deemed concluded. The University may provide alternate recognition as appropriate in honor of the original gift.

8. **Name Removal Process.** The removal of a name from a facility must not be undertaken lightly, and it must be approached with respect for the considered judgments of the past, especially when exercised by the contemporaries of an honoree, and with an awareness of the fallibility of our own judgments. Consideration of renaming must include, at a minimum, the following:
  - a. Proposals for removal of names from physical facilities shall be ~~brought to the Board of Trustees by the Chancellor at the discretion of a campus~~ **initiated by the President** after a campus-level review process, including soliciting perspectives from diverse stakeholders and public comment, has completed and identified the grounds for removal. The review team or task force shall present their findings and recommendation in a formal, written report to the respective President.
  - b. **After receiving written approval from the Vice Chancellor of Finance and Administration, the President will submit the request to the Chancellor.**
  - c. ~~Before the Board of Trustees considers the issue, the name change or removal of the name shall be reviewed by the Chancellor and President's Council. After review~~ **approval by the Chancellor and President's Council, the Chancellor may forward the request will be forwarded to the appropriate UMS Board of Trustees Committee for approval.**

- d. If approved by the appropriate UMS Board of Trustees Committee, the recommendation will be presented to the full UMS Board of Trustees for consideration.
- e. Upon the removal of a name, the name of the facility may revert to the name immediately previous. If there is no previous permanent name, an administrative name shall be adopted. The process for an initial naming shall be utilized if the facility is subsequently renamed.



# UNIVERSITY OF MAINE SYSTEM

## Policy Manual

### ACADEMIC AFFAIRS

#### Section 301.3 Mission - University of Southern Maine

Effective: 9/23/91

Last Revised: 7/15/96; 11/15/10

Responsible Office: Academic Affairs

**DRAFT**  
**8/11/2022**

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#### Policy Statement:

~~The University of Southern Maine, northern New England's outstanding public, regional, comprehensive university, is dedicated to providing students with a high quality, accessible, affordable education. Through its undergraduate, graduate and professional programs, USM faculty members educate future leaders in the liberal arts and sciences, engineering and technology, health and social services, education, business, law and public service. Distinguished for their teaching, research, scholarly publication and creative activity, the faculty are committed to fostering a spirit of critical inquiry and civic participation. USM embraces academic freedom for students, faculty, and staff, and advocates diversity in all aspects of its campus life and academic work. It supports sustainable development, environmental stewardship, and community involvement. As a center for discovery, scholarship and creativity, USM provides resources for the state, the nation, and the world.~~

“Committed to equity and excellence, the University of Southern Maine advances a culture of inquiry and belonging in which research, creativity, and innovation accelerate transformational development in our students, on our campuses, and in our communities.”

#### Related documents:

Policy 301 through 301.8 - Mission Statements



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

Tel: 207-973-3211  
Fax: 207-581-9212  
[www.maine.edu](http://www.maine.edu)

Date: October 5, 2022

To: Dannel Malloy, Chancellor  
University of Maine System (UMS)

From: Robert Placido, VCAA

*RAP*

Regarding: UM Program Proposal: B.S. Business Administration, Business Information Systems and Security Management

The University of Maine

University of Maine  
at Augusta

University of Maine  
at Farmington

University of Maine  
at Fort Kent

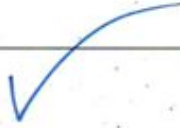
University of Maine  
at Machias

University of Maine  
at Presque Isle

University of  
Southern Maine

Please find the attached program proposal from the University of Maine (UM) to offer the B.S. Business Administration, Business Information Systems and Security Management. The attached material includes documentation of university level support including approval from President Joan Ferrini-Mundy as well as the full program proposal.

The proposed suspension of the B.S. Business Administration, Business Information Systems and Security Management was reviewed and recommended by the Chief Academic Officer's Council (CAOC) on August 18, 2022. I also recommend this program for your approval.

I approve	I do not approve for the reasons listed below	Additional information needed for decision	Action
			Recommend the UM BSBA - BISSM

  
Chancellor Dannel Malloy

*Oct 5 2022*  
Date

Office of the Executive Vice President  
for Academic Affairs & Provost



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Orono, Maine 04469-5703  
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**TO:** ROBERT PLACIDO, VICE CHANCELLOR FOR ACADEMIC AFFAIRS (UMS)  
**FROM:** JOHN C. VOLIN, EXECUTIVE VICE PRESIDENT FOR ACADEMIC AFFAIRS AND PROVOST  
**SUBJECT:** PROPOSAL FOR BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION (BSBA) IN BUSINESS INFORMATION SYSTEMS AND SECURITY MANAGEMENT (BISSM)  
**DATE:** MAY 11, 2022  
**CC:** MEREDITH WHITFIELD, CHIEF OF STAFF  
FAYE GILBERT, EXECUTIVE DEAN OF THE MAINE BUSINESS SCHOOL  
JASON HARKINS, ASSOCIATE DEAN OF THE MAINE BUSINESS SCHOOL

A handwritten signature in black ink, appearing to read 'John C. Volin'.

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The Faculty of the Maine Business School propose a new Bachelor of Science in Business Administration (BSBA) in Business Information Systems and Security Management (BISSM), to build on their existing undergraduate concentration in Business Information Systems and partnerships within UMaine as well as partners across the University of Maine System (UMS).

*Rationale*

The proposed degree in the Maine Business School focuses on fulfilling a growing need among Maine employers, according to Burning Glass. This data shows over 2,500 job openings in the state while higher education institutions within the state produce about 200 students in this area each year.

In addition, this contributes to UMaine's SVV through preparing learners for success by aligning tailored academic pathways with the skills needed to thrive in a range of career contexts and builds on UMaine's reputation as an easily accessible and highly desirable partner to apply creativity and innovation to solve problems for Maine businesses, K-12 education, industry, and the state. This new program proposal meets our values: Fostering Learner Success, Discovering & Innovating, and Growing & Advancing Partnerships.

This proposal has received all appropriate campus review and approval. President Ferrini-Mundy and I fully support the creation of the B.S. in Business Administration in Business Information Systems and Security Management (BISSM).

APL X-P.1 "Academic Program Approval", Section I "Approval of Undergraduate Majors, graduate degree programs, and advanced certificates of study", Step 3. "University of Maine System (UMS) Evaluation" is the relevant section of the University of Maine System Administrative Practice Letters. An excerpt of the policy indicates "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)."

Please let me know if you have any questions or if there is any additional information you require.

Addendum to Proposal for a new major in the Maine Business School  
Business Information Systems Security Management

On June 3rd, 2022 Dr. Henry Felch, Associate Professor of Cybersecurity and Computer Information Systems at UMA, Dr. C. Matt Graham, Associate Professor of Business Information Systems at the Maine Business School, and Dr. Jason Harkins, Associate Dean of the Maine Business School and Associate Professor of Entrepreneurship met. They discussed the proposal for a new major in the Maine Business School in Business Information System Security Management as part of the Bachelor of Science in Business Administration (BSBA) to consider course equivalencies between the BISSM proposal and UMA's Bachelor of Science in Cybersecurity. They identified the following opportunities for students to this new degree if approves:

Core Course Equivalency:

- ISS 350 Databases and Database Security at UMA is equivalent to BIS 267 Database Management and Security at UM.
- ISS 470 Information Security Management at UMA is equivalent to BIS 363 Information Security Management at UM

Students in either the BISSM program or at UMA's cybersecurity program will be able to take either equivalent course as available as credit towards degree progress in either the BISSM at the Maine Business School or in the BS in cybersecurity at UMA. Prerequisites can be waived at either campus at the discretion of each college when needed to support progress to degree.

Opportunities for Collaboration:

- They agreed to look for opportunities for teaching collaborations and interdisciplinary development between BISSM's BIS 468 Business Strategy, Security and Information Systems course and UMA's cyber range.
- They agreed students enrolled in the BISSM program can use free electives to take UMA courses leading to a UMA Information Assurance Certificate as part of earning their BSBA with a BISSM major. If students choose to pursue this option, they would need the following additional certificate course requirements (in addition to those identified above):
  - ISS 220 - Security Risk Management 3 CR
  - ISS 240 - Security Policy and Governance 3 CR
  - ISS 250 - Auditing IT Infrastructures 3 CR
  - ISS 320 - Security Monitoring 3 CR
  - ISS 360 - Incident Response 3 CR

This option can be pursued by students in the BSBA within their 120 hours required to earn a Bachelor's Degree and could be attractive to students interested in this rapidly growing field.

- They agreed to add ISS 220: Security Risk Management and CIS 110 Programming Fundamentals as electives in the BISSM proposal.



**Program Name:**

Bachelor of Science in Business Administration (BSBA) in Business Information Systems and Security Management (BISSM)

**Summary of Changes:**

The Maine Business School (MBS) proposes a Bachelor of Science in Business Administration in Business Information Systems and Security Management (BISSM). The proposed launch date is for Fall semester of 2022. This new major will build on the existing Business Information Systems (BIS) Concentration and its existing partnerships with the New Media and Computer Science faculty of the School of Computing and Information Science (SCIS) as well as partners across the University of Maine system. As a major, Business Information Systems and Security Management (BISSM) will attract new enrollment and produce graduates with cutting-edge skills fulfilling a growing need among Maine employers.

The signatures below indicate approval of the program proposal summarized above.



Susan Myrden (Mar 29, 2022 10:47 EDT)

Dr. Susan Myrden  
Chair, MBS Undergraduate Curriculum Cmte

Mar 29, 2022

Date



Dr. Faye W. Gilbert  
Executive Dean, Maine Business School

March 29, 2022

Date



Dr. Brian Olsen  
Associate Provost for Student Success and Strategic Initiatives

04/25/2022

Date



Dr. John C. Volin  
Executive Vice President for Academic Affairs & Provost

5/6/22

Date



Dr. Joan Ferrini-Mundy  
President of University of Maine & University of Maine at Machias

6/10/22

Date

Office of the President  
University of Maine  
University of Maine at Machias



5703 Alumni Hall  
Orono, Maine 04469-5703  
Tel: 207.581.1512  
umaine.edu  
machias.edu

April 27, 2022

TO: William "Dee" Nichols, President  
Faculty Senate

FR: Joan Ferrini-Mundy  
President

John C. Volin  
Executive Vice President for Academic Affairs and Provost

CC: Meredith Whitfield, Chief of Staff  
Kimberly D. Junkins, Administrative Specialist, CL1, Faculty Senate  
Corey Watson, Executive Assistant to the Executive Vice President for Academic Affairs and Provost

RE: Response to Faculty Senate Motions from April 6, 2022, meeting, and received for action on April 7, 2022.

Thank you for your letter dated April 7, 2022, regarding the motions approved at the April 6, 2022 Faculty Senate meeting. After review with Executive Vice President for Academic Affairs and Provost John C. Volin, my responses to the April 6<sup>th</sup> UMaine Faculty Senate Motions are as follows:

Regarding the motions:

**1. Regarding Motion to Change the Bylaws**

I support this motion as written with the following suggestion (in **bold**) to the Faculty Senate for an amendment:

*Article VII, Section 5, Subsection B: Membership be amended from "and the Associate Provost for Student Success and Strategic Initiatives," to "and the Associate Provost for Student Success and Strategic Initiatives, or a **designated appointee**."*

Most other Faculty Senate Committee ex-officio members allow a designee to take the place of the VPRDGS or EVPAA & Provost, when appropriate. This would allow the same flexibility to the Associate Provost for Student Success and Strategic Initiatives as well.

MAINE'S LAND GRANT, SEA GRANT AND SPACE GRANT UNIVERSITY  
WITH A REGIONAL CAMPUS IN MACHIAS

Thank you for your good work on updating and amending the Faculty Senate Bylaws to reflect current collaborations between administration and faculty.

**2. Regarding Motion from University of Maine's Faculty Senate Program Creation and Reorganization Review Committee (PCRRC) for Consideration by the Full University of Maine Faculty Senate**

I support the motion as written. I appreciate your attention to reviewing and approving new degree programs that generate new learning opportunities for students.



**Motion – From the University of Maine's Faculty Senate Program Creation and Reorganization Review Committee (PCRRC) for consideration by the Full University of Maine Faculty Senate**

Regarding the Maine Business School's Proposal for a New B.S. Degree Program in *Business Information Systems and Security Management (BISSM)*  
April 6, 2022

**Background:**

Proposals for new degree programs at the University of Maine, and subsequent actions on those proposals, follow procedures detailed in *UM System BOT Policy 305.1, APL X-P.1 Academic Program Approval* (<https://www.maine.edu/students/office-of-the-vice-chancellor-of-academic-affairs/apl-x-p-1/>), and also procedures in *"The University of Maine 120-Day Process for Approval of New Academic Degree Programs"* (Chapter 2; revised Oct. 16, 2019, <https://umaine.edu/facultysenate/committees/pcrrc/>).

**Key steps are:**

- 1) The Unit or College produces a written description and rationale for the new program in 250 words or less (this is called a "Program Request");
- 2) To go forward that "Program Request" must be approved by the Provost, the UM System Vice Chancellor for Academic Affairs (VCAA) and the Chief Academic Officers Council (CAOC);
- 3) If approved, the sponsoring College or Unit prepares a "Full Program Proposal", which is filed with: The Provost's Office; The chair of the Undergraduate Program Curriculum Committee (UPCC) or, if a graduate program, the Associate Vice President for Graduate Studies for the Graduate Board (GB); and, The chair of the Program Creation and Reorganization Review Committee (PCRRC) of the Faculty Senate for review and recommendations;
- 4) The PCRRC distributes the "Full Program Proposal" to all members of the Faculty Senate for information and review;
- 5) The PCRRC schedules and hosts a PCRRC Committee meeting to discuss the "Full Program Proposal" with the primary proponents of the proposal;
- 6) After #5, the PCRRC schedules and hosts a "Campus-wide Hearing" to gather further comments regarding any concerns by the university community;
- 7) Because it is customary for Senate motions to be presented to the Full Senate for discussion two weeks prior to taking a vote, the PCRRC will briefly discuss the "Full Program Proposal" at a 'Members-only Meeting' of the Senate, and will introduce two potential motions, only one of which will come up for a vote at an upcoming Elected Senators Meeting – e.g., either *in support* or *non-support* of the new program proposal – with the specific motion to be as determined following the "Campus-wide Hearing" (#6);
- 8) A official vote will be taken by the Faculty Senate to report to the President the Senate's recommendation either in support of, or not in support of, the creation of the new degree program.

**Motion:**

With steps #1 through #7 having taken place, and the members of the PCRRC (Program Creation and Reorganization Review Committee) of the University of Maine Faculty Senate being favorably

inclined, having heard no significant opposition to the proposal, the Faculty Senate hereby moves to recommend to the President that the Maine Business School's Proposal for a New B.S. Degree Program in *Business Information Systems and Security Management (BISSM)* go forward.

**Vote: Approved**

Office of the Executive Vice President  
for Academic Affairs & Provost



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umaine.edu

April 26, 2022

To: John C. Volin, Executive Vice President for Academic Affairs and Provost

From: Brian Olsen, Associate Provost for Student Success and Strategic Initiatives

Re: Approval of proposed major in Business Information Systems and Security Management

Dear Provost Volin,

The Undergraduate Program Curriculum Committee met on March 29 and, in an advisory capacity, endorsed the proposed major in Business Information Systems and Security Management (BISSM) submitted by the Maine Business School. A brief synopsis:

#### **Business Information Systems and Security Management**

The Maine Business School (MBS) proposes a Bachelor of Science in Business Administration in Business Information Systems and Security Management (BISSM). The proposed launch date is for Fall semester of 2022. This new major will build on the existing Business Information Systems (BIS) Concentration and its existing partnerships with the New Media and Computer Science faculty of the School of Computing and Information Science (SCIS) as well as partners across the University of Maine system. As a major, Business Information Systems and Security Management (BISSM) will attract new enrollment and produce graduates with cutting-edge skills fulfilling a growing need among Maine employers.

The proposal received review by the Maine Business School's Curriculum Committee and was signed by Dean Faye Gilbert on March 29. I am supportive of this proposed new major. Thank you for your consideration.

**New Major Proposal**  
**For consideration by the Maine Business School**

1. **Proposed Program Title** Business Information Systems and Security Management (BISSM)

2. **Primary Applicant -**

**Name:** Nory Jones

**Position Title:** Professor, BIS, Maine Business School

**Campus Address:** 323 Donald P Corbett Business Building

**Contact Number:** 581-1995 **Email:** [njones@maine.edu](mailto:njones@maine.edu)

**Signature/Date:**

3.	Co-Applicant(s) Information				
	Name	Email	Academic or Admin. Office(s)	Role in Proposed Work or Program	Initials
	C. Matt Graham	c.matt.graham@maine.edu	DPC 330	Co-leader of project	CMG
	Tanya Beaulieu	tanya.beaulieu@maine.edu	DPC 317	Co-leader of project	TYB
	Nadège Levallet	nadege.levallet@maine.edu	DPC 303	Co-leader of project	NL

**College Dean: Dr. Faye Gilbert**

**Proposed New Degree Summary**

The Maine Business School (MBS) proposes a Bachelor of Science in Business Administration in Business Information Systems and Security Management (BISSM). The proposed launch date

is for Fall semester of 2022. This new major will build on the existing Business Information Systems (BIS) Concentration and its existing partnerships with the New Media and Computer Science faculty of the School of Computing and Information Science (SCIS) as well as partners across the University of Maine system. As a major, Business Information Systems and Security Management (BISSM) will attract new enrollment and produce graduates with cutting-edge skills fulfilling a growing need among Maine employers.

### **The Opportunity**

According to Forbes<sup>1</sup>, digital transformation requires that “leaders and IT teams in any enterprise should work hand in hand to meet business requirements, drive innovation, and march towards continuous improvement”. However, this march towards digital transformation creates an increasing complex environment of which security and privacy are a key to success, yet increasingly at risk. For example the impact of security breaches became apparent in the spring of 2021 when a single compromised password at Colonial Pipeline Co. took down a network of fuel pipelines leading to massive fuel shortages and disruption across the Eastern United States.

Research shows that addressing information security and privacy within organizations goes beyond implementing strong technical solutions. As Roger notes in the Diffusion of Innovations, one of the most difficult, yet important aspect of innovation is the implementation which requires leadership and strong change management skills. To this end, it is critical that we prepare the workforce by addressing the business and management implications of information security. Increasingly it is important that business leaders collaborate closely with their technical counterparts. A report by Sci-Tech<sup>2</sup> with survey responses by nearly 500 North American professionals emphasize the importance of collaboration. They report that “companies look to improve cross-organizational collaboration, increase innovation and solve for business issues, all while trying to bring the best and brightest digital talent on board.” Nowhere is the need more pressing than in the area of information security. Privacy and the securing of data is a complex issue involving not only technical skills, but also applying sound management practices to monitor, prevent, and respond to security issues. In other words, organizations need to elevate their approach to security to go beyond the operational and move toward the management and strategic implications of security. This last point is particularly relevant for our proposed major in Business Information Systems and Security Management (BISSM). As a degree based in business, our aim is to combine valuable business skills with technology in order to create leaders knowledgeable in information security risk management and response. This a combination that is greatly needed and in short supply in our businesses and organizations today.

### **The Need**

According to Cybersecurity Investments, cybersecurity employment increased 350% during seven years, from one billion in 2014 to 3.5 billion in 2021. This trend is expected to continue at least through 2025<sup>3</sup>. Within this area, there is a high demand for information systems managers

<sup>1</sup> Rashid, B. (2017). Digital Transformation and Innovation in Today's Business World. Forbes.

<https://www.forbes.com/sites/brianrashid/2017/06/13/digital-transformation-and-innovation-in-todays-business-world>

<sup>2</sup> [http://www.sci-tech-today.com/news/Where-Will-the-2018-Tech-Jobs-Be-/story.xhtml?story\\_id=033003FYIPL9](http://www.sci-tech-today.com/news/Where-Will-the-2018-Tech-Jobs-Be-/story.xhtml?story_id=033003FYIPL9)

<sup>3</sup> <https://www.globaltechcouncil.org/cyber-security/cybersecurity-jobs-report-3-5-million-openings-through-2025/>

and security management professionals in the United States. The US Bureau of Labor Statistics (BLS) estimated that employment for information security analysts will grow by 33% from 2020 to 2030, while information system managers are projected to grow 11% during this same time period<sup>4</sup>. BLS reports that both professions are growing faster than the average occupation growth rate with openings coming not only from attrition and retirements, but also a growing demand, especially among the security aspects of technology. Drawing on BLS data, median salaries for security analysts are \$103,590 and the median salary for information system managers was \$151,150 as of May 2020. US News and World Report<sup>5</sup> states, “The Labor Department predicts that tech jobs will grow faster than the average for all jobs at a rate of 13 percent this decade.” These jobs include software developer, IT security analyst, IT manager and more. U.S. Bureau of Labor Statistics predicts that in 2020 there will be 1.4 million more software development jobs than applicants who can fill them. Stating “schools and other tech education programs can't seem to produce candidates fast enough.”

According to a Burning Glass report, top skills in demand related to information security management include risk management, which analyzes data to understand the risks the organization can face and minimizes them and threat intelligence, which analyzes the organization or business data for potential threats among others<sup>6</sup>. Other skills in demand for business technology analysts included database management and SQL, software development, project management, web development, systems design, systems analysis, business processes and analysis, system administration and cloud solutions among others. Graduates with a BISSM major would be qualified to fill these positions depending on the mix of electives selected.

### **Maine's Need**

Nationally, a recent Burning Glass report showed (for undergraduate degrees) 1,844,334 job postings in the field of both business information systems and security management. In New England, there were 97,058 job postings. In Maine alone, we see over 2,500 job openings. However, higher education institutions within the state of Maine are only matriculating about 200 students with security management skills each year, demonstrating that there is a wide gap in the number of individuals prepared to fulfill the needs for these important jobs.

Furthermore, there is a great need for technology skills in Maine, according to New Ventures Maine<sup>7</sup>: “Along with the rest of the country, Maine will continue to see an increasing need for IT and security professionals in the next decade. Employees are needed to maintain existing networks and security, create software, and develop mobile apps”. Examples of Maine employers in need of business information systems and security management majors include but are not limited to:

- Tyler Technologies, Inc.

<sup>4</sup> <https://www.bls.gov/ooh>

<sup>5</sup> <https://money.usnews.com/careers/best-jobs/rankings/best-technology-jobs>

<sup>6</sup>

<https://cisomag.eccouncil.org/these-are-the-top-4-cybersecurity-skills-in-demand-in-2021/#:~:text=A%20few%20of%20the%20top,control%2C%20and%20health%20information%20security>

<sup>7</sup> <http://newventuresmaine.org/2017/04/now-hiring-technology-jobs-maine/>

- S.W.Cole Engineering, Inc.
- CM Almy
- Downeast Community Partners
- MaineHealth Corporate
- Kennebec Intra-District Schools RSU 2
- Idexx
- Cianbro
- TD Bank
- Kennebunk Savings
- Bangor Savings Bank
- Healthinfonet
- Siemens
- Northern Light Health
- LL Bean

### **Addressing Concerns for Possibly Competing with Existing UMS IT/IS/Cyber Majors**

#### **Impact of program on existing programs on both the home campus and other USM campuses:**

The BISSM major is unique from the degrees offered by the School of Computing and Information Sciences. Whereas computer science programs focus on algorithms, software development, and foundations and applications of computing technology, the BISSM major will focus on the management and application of technology in solving business needs and protecting information assets. The programs in Information Systems (MS, graduate certificate) offered as part of the SCIS Spatial Computing programs are available only at the graduate level.

The BISSM major would also be different than cybersecurity degrees offered at the University of Maine at Augusta (UMA), the University of Southern Maine (USM), the University of Maine at Presque Isle, and the University of Maine at Fort Kent. These programs have a more technical focus and draw on the NSA's designation and ABET accreditation. While the core competencies taught in these cybersecurity degree programs focus on technical skills to deter cyber-attacks, the MBS's BISSM degree focuses its core competencies on information security management from an organizational perspective. The BISSM major will fall under the AACSB accreditation, the highest accreditation given to business schools.

Core security management competencies taught in the proposed BISSM degree include: information security governance, risk management, information security program development and management, designing information systems with security in mind, and information security incident management. In this curriculum, students will learn how to identify, assess, and prioritize information systems security risks and strategies for responding to breaches when they occur.

#### **Letter of Support from Dr. Penny Rheingans, Professor of Computer Science, SCIS Director**

This BISSM major will complement UMaine's Computer Science degree. As part of our collaboration with the computer science degree, the School of Computing and Information Science Director, Dr. Penny Rheingans wrote a letter of support for the creation of the new major at the MBS. Quoting her directly she wrote in the letter of support:

"I would like to indicate my support for the creation of a new major in Business Information Systems. Such a major would focus on the issues and strategies of designing technology solutions to address business management challenges. In this way, it would complement, rather than compete with, the existing BS degree in Computer Science that focuses more on the design and implementation of new technology. The new degree would likely appeal to a different set of incoming students than our current degrees and broaden the opportunities at UMaine to attract more students."

#### **Program Overview:**

We suggest that a major in Business Information Systems and Security Management in the Maine Business School is needed to provide students with the leadership, management, technology skills and knowledge to achieve innovation and competitive advantage in the digital transformation era of business and cybersecurity. The opportunity we present is to grow this program from an existing curriculum offered as a Business Information Systems (BIS) concentration. By reframing the topic as BISSM, we encourage further interdisciplinary collaboration and by making it a major in its own right, we can meet a real need for digital leaders in Maine's economy as well as regionally and nationwide, and attract new enrollment.

The planned program curriculum is based on the guidelines set forth by the ACM/AIS IS2020<sup>8</sup> Model Curriculum. The IS2020 curriculum offers "recommendations and guidelines for undergraduate degrees in Information Systems"<sup>9</sup>. Notably, it is important to help students develop a strong knowledge base of the core aspects of IS, including technology (hardware, software, etc.), data and information, people and the organization, business processes and partners.

No new courses or faculty are needed for the proposed major. Security management will be introduced in BIS 235 Digital Business Transformation, the BIS 267 Database Security class will include topics on security in multitenant environments, data redaction, sensitive data protection and privilege analysis. The BIS 363 class will be redesigned to focus on security management that includes topics on security governance, risk management, information security program development and management, designing information systems with security in mind, and information security incident management. BIS 468 will focus on IS strategy management including security management.

#### **Outline of required and/or elective courses:**

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<sup>8</sup> <https://www.acm.org/binaries/content/assets/education/curricula-recommendations/is2020.pdf>

<sup>9</sup> Ibid p.10



**Core Business Courses:** All BSBA Business Students Must Complete Twelve (12) Core Business Courses:

- Introduction to Business (MGT 101)
- Excel Fundamentals for Business Analytics (BIS 105)
- Financial Accounting (ACC 201)
- Managerial Accounting (ACC 202)
- The Legal Environment of Business (MGT 220)
- Digital Business Transformation (BIS 235)
- Principles of Marketing (MKT 270)
- Introduction to Management (MGT 325)
- Production/Operations Management (MGT 337)
- International Business (MGT 343)
- Business Finance (FIN 350)
- Strategic Management (MGT 449)

**Four Core Discipline Courses**

- BIS 267 Database Management and Security
- BIS 363 Information Security Management
- BIS 364 Enterprise System Configuration
- BIS 468 Business Strategy and Information Systems

**Complete One Elective**

- BIS 345 Business Analytics for Security Management
- BIS 490 Topics in Business Information Systems
- COS 125 Introduction to Problem-Solving using Computer Programming
- ISS 240 Security Policy and Governance (UMA)
- ISS 334 Cyber Law (UMA)
- ITT 451 Cyber Law Policies and Ethics (USM)
- COS 184 Python Programming (USM)
- BUS 240 Change Management (UMPI)
- Other courses as approved

**a. The BISSM major can be taught on campus, online, and in hybrid delivery**

Due to the ongoing COVID-19 pandemic, many of the current BIS concentration classes are offered on campus, online, and in hybrid delivery to accommodate students' health and personnel safety needs. As evidence of this, currently BIS 235 Digital Business Transformation and BIS 267 Database Management have been taught hybrid and fully online. BIS 363 Network Design and Applications has been taught in a hybrid format. The BISSM major would continue to offer these three modalities to deliver the required courses to students.

### b. Certification & Certificate Opportunities

- In BIS 363 students are prepared to earn The NetworkPro certification
- In BIS 364 students are offered the opportunity to earn the Salesforce Admin badge within the Salesforce Trailhead.
- Students who complete BIS 235 Digital Business Transformation, BIS 345 Business Analytics, and BIS 364 Enterprise System Configuration earn a SAP Certificate of Completion through the MBS / SAP University Alliance.

## I. Program Resources

- Personnel: (Vita's in appendix)
  - Dr. Nory Jones, Professor of Business Information Systems
  - Dr. C. Matt Graham, Associate Professor of Business Information Systems
  - Dr. Tanya Beaulieu, Assistant Professor of Business Information Systems.
  - Dr. Nadège Levallet, Assistant Professor of Management and Information Systems
- No new equipment or additional space will be needed.
- The BISSM major would continue the BIS concentrations interdisciplinary partnership with School of Computing and Information Sciences, New Media, and other University of Maine system campuses.
- BIS Faculty Resources
  - Teaching Loads
 

Dr. Nory Jones: 2/2

Dr. Matt Graham: 2/3

Dr. Tanya Beaulieu: 3/2

Dr. Nadège Levallet: 3/2
  - Proposed Teaching Schedule to address Core and Electives

	Jones	Graham	Beaulieu	Levallet
<b>Fall</b>				
BIS 235	2 Sections	1 Section	1 Section	1 Section
BIS 267		2 Sections		
BIS 364			1 Section	
<b>Spring</b>				
BIS 235	2 Sections		1 Section	1 Section
BIS 363		1 Section		
BIS 468				1 Section
BIS 345		1 Section		

## II. Total Financial Consideration

- No new faculty required

- b. No additional administrative and/or support costs required
- c. No new equipment required
- d. No other additional financial resources required

### **Enrollment Projections**

Enrollments in the existing Business Information Systems concentration have experienced significant year-to-year growth since its inception in 2014, and BIS is now the largest concentration in the Maine Business School which is not offered as a major. Enrollment numbers are listed below:

These enrollment numbers show excellent growth between fall 2014 and fall 2020:

<b>Year</b>	<b>Difference in enrollment</b>	<b>Percent Gain</b>
Spring 2014 to fall 2020	31 + students	115%

<b>Semester / Year</b>	<b>Enrollment Numbers</b>
Spring 2014	27 students
Fall 2021	47 students

We note that the numbers have since continued to increase. We attribute this growth to some replacement of faculty as well as an expanded mix of faculty in an effort to continually update the curriculum to ensure our students are current in new technologies. In addition, students informally reported that they would have declared BIS as a major if that was available.

Therefore, with adequate promotion of the concentration to our students, focusing on the demand in jobs and making this a major, we believe we will see a significant increase in student enrollment. Additionally, the Bureau of Labor Statistics shows that employment of information security analysts is projected to grow 33% from 2020 to 2030. Similarly, the Bureau of Labor Statistics reports that information security analyst's jobs are projected to grow 33 percent from 2020 to 2030.

In addition, we also note that at the start of 2019, enrollments began increasing again. The pandemic has also created a greater awareness of the need for technologies with online learning replacing traditional classes as the university responded to the crisis, and businesses accomplishing more through technology-mediated activities.

### **Projected Growth**

Given our past year-to-year growth between 2014 and 2021, we conservatively expect the new Business Information Systems and Security Management (BISSM) major to see an initial growth of approximately 20% a year. This estimate takes into consideration that since the first year the BIS concentration began taking enrollments, we saw a 100% increase in enrollments between

Spring 2014 and Spring 2015 with continuing increases in enrollments year-to-year through Spring 2026

Year	20% Increase	Total Projected Enrollments in Business Information Systems and Security Management (BISSM) Major
Fall 2021 to Fall 2022	9 + students	56 students
Fall 2022 to Fall 2023	11 + students	68 students
Fall 2023 to Fall 2024	14 + students	81 students
Fall 2024 to Fall 2025	16 + students	97 students
Fall 2025 to Fall 2026	19 + students	117 students

Another tangible indicator of the growing demand for BIS classes (such as BIS 267 Database Management) is that we had to move our computer lab from a 30-seat lab to a 50 + seat lab at the Maine Business School and increase the number of sections of BIS 267 offered each year to accommodate student demand for the course. This holds true for the other courses in the concentration. These observations from our program are confirmed by the **“Burning Glass” report which indicated one of the highest skills in demand is in the data and security field.**

### Program Assessment and Evaluation

The Maine Business School’s Bachelors of Science in Business Administration is accredited by the AACSB, the world’s premier accrediting body for business schools. The AACSB accreditation is “the longest-standing, most recognized form of specialized accreditation that an institution and its business programs can earn”<sup>10</sup>. Each accredited program is evaluated on a five-year cycle, based on standards around 1) Strategic Management and Innovation, 2) Learner Success, and 3) Thought Leadership, Engagement and Societal Impact.

Core to the idea of continuously improving on learner success is the assessment and evaluation of program level learning outcomes (ALO). As a new major in the Maine Business School, Business Information Systems Security Management students will engage in the same core course offerings required of all MBS majors<sup>11</sup> and will earn a business degree. The MBS has developed and implemented assessment mechanisms to ensure that the BSBA achieves Assurance of Learning Outcomes outlined below. Assessment is conducted on each of the outcomes regularly to ensure that business students are achieving key learning outcomes. The ALOs for the BSBA program determined by the business faculty in alignment with our mission are:

<sup>10</sup> <https://aacsb.edu/educators/accreditation>

<sup>11</sup> The MBS core offerings include the following classes: Introduction to Business (MGT 101), Excel Fundamentals for Business Analytics (BIS 105), Financial Accounting (ACC 201), Managerial Accounting (ACC 202), The Legal Environment of Business (MGT 220), Management Information Systems (BIS 235), Principles of Marketing (MKT 270), Introduction to Management (MGT 325, Production/Operations Management (MGT 337), International Business (MGT 343), Business Finance (FIN 350), Strategic Management (MGT 449)

1. Knowledge (core business knowledge)
2. Communication (effective oral and written communication)
3. Teamwork. (effective team members)
4. Ethics
5. Global Perspectives.
6. Technological Agility/Problem Solving.

While all aspects of these ALOs are relevant to the major, the BISSM major will significantly contribute to the achievement of ALO #6 regarding technological agility and the development of problem-solving ability: "Our learners will feel confident in using technology and analytical techniques to help solve problems and draw appropriate conclusions". Students graduating with a BISSM will have developed a deep understanding of the value of technology in organizations for competitive advantage.

In addition, in order to assess student success within the BISSM major, we will collect and analyze the following data on a yearly basis:

1. Surveying employers to understand whether the BISSM major is keeping current in providing the knowledge and skills needed in the workplace.
2. Tracking the number of students who achieve the following:
  - NetworkPro Certification
  - Salesforce Administration Trail
  - Salesforce Cybersecurity Trail
  - SAP Certificate of Recognition

## Appendix I: BISSM Proposal Course Descriptions

### **Digital Business Transformation (BIS 235)**

Technologies and information systems represent a crucial part of any organization to provide competitive advantage in terms of efficiency, value, quality and productivity. In today's economy, businesses require continual digital transformation to become or remain competitive. The focus of this course is to provide students with the knowledge and tools in essential technologies including databases, computer networks, cloud computing, transactional software, integrated enterprise software, e-business systems, cyber security, and emerging technologies.

### Four Core Discipline Courses

#### **BIS 267 Database Management and Security**

Introduction to technical and managerial issues associated with databases. Topics include structured query language (SQL) and database usage in decision making. Focuses on database security to mitigate against major database security issues. Students will learn how to incorporate security models into the database life cycle and use database security for allowing or disallowing user actions on the database and the objects within it.

#### **BIS 363 Information Security Management**

Introduces the design, management and information security of information systems in networked environments. Topics include telecommunications, network architecture, and a focus on information security governance, risk management, information security program development and management, and information security incident management.

#### **BIS 364 Enterprise System Configuration**

Discusses advanced topics in business processing including concepts related to Enterprise System (ERP) principles, concepts, and techniques. Grounded in an SAP (Systems, Applications & Products in Data Processing) architecture, this course counts toward the SAP Certificate of Completion. Topics in the class include understanding system requirements and how business processes and business rules translate into system configuration. Using SAP, students will learn the fundamentals of configuring an enterprise system from requirement gathering, through design, configuration, and testing.

#### **BIS 468 Business Strategy, Security and Information Systems**

Digital technologies have emerged as critical organizational resources to compete in dynamic markets. When embracing digital business transformation, leaders must rethink how to operate their organization, and how best to compete in the marketplace. Notably, business and IT leaders need to manage information systems by integrating major software systems like customer relationship management, supply chain management, big data, analytics, artificial intelligence, cloud technologies, and the Internet of all things, across functional areas of the organization, but also on various digital platform ecosystems. The pervasiveness and openness of these systems poses security challenges that must also be managed. This course provides students with fundamentals about the management of the IT function in this context, strategies to help improve the value of IT for the organization, and the secure and ethical use of information and data from

information systems. The course represents the culmination and integration of prior knowledge gained in the business and BIS curriculum.

#### Complete One Elective

##### **Business Analytics for Security Management (BIS 345)**

Overview of the process of business analysis. Data analytics have moved out of the academic world of statisticians to the practical world of technology. A variety of user-friendly technologies bring powerful analytical capabilities to end users. Three major areas that comprise analytics are reporting, visualization and prediction. This course uses the latest in technology to show the practice of data analytics in the real world. You will experience practical applications of analytics through guided exercises and case studies.

##### **Topics in Business Information Systems and Security Management (BIS 490)**

Study of various aspects of functional areas of business information systems. Topics vary depending on faculty and student interests. May be repeated for credit if the topics differ.

##### **Intro to Problem-Solving using Computer Programming (COS 125)**

An introduction to computer science through problem solving and computer programming. Topics include variable and operators, control logic, functions, strings, loops, input/output, and recursion. Programming concepts covered by this course include modularity, abstraction, top-down design, specifications, documentation, debugging, and testing. No prior programming experience is expected. Required for majors.

##### **Security Policy and Governance ISS 240 – UMA**

The course includes a discussion on security policies that can be used to help protect and maintain a network, such as password policy, e-mail policy and Internet policy. The course includes how to create a compliance program within an organization to monitor policies. The issues include organizational behavior and crisis management.

##### **Cyber Law ISS 334 – UMA**

This course is designed to enable students to concentrate on the legal issues and challenges that the changes in technology have created. Crimes such as identity theft, fraud, software protection, property rights violations and online staling will be explored. This course will examine how laws expanded and changed to account for the increase of crimes in the digital age.

##### **Cyber Law Policies and Ethics ITT 451 (USM)**

This course introduces aspects of cybersecurity laws and policies to integrate these challenges into cyber planning, operations, and strategy. The class will explore privacy issues, legal considerations, codes of ethics, and ethical implications faced by cybersecurity professionals. Topics align to the Department of Homeland Security (DHS) organizational security knowledge area covering security laws, regulations, and regulatory standards such as the International Organization for Standardization (ISO). Students will analyze organizations to develop security

profiles for public and private entities. The intent is to develop understanding as a security professional of governances and how they convey compliances to business verticals such as healthcare and eCommerce.

**Python Programming COS 184 (USM)**

This course is a fast-paced introduction to computer programming for solving practical problems, taught in Python, a modern object-oriented dynamic computer language. It is also appropriate for students who have some programming background and want to pick up Python. The course format is live online with Zoom meetings, recorded for later review. There is a “lab” in which pairs of students tackle predefined lab-specific assignments. The course teaches how to represent aggregates of data, process data selectively and repetitively, structure programs with functions and use predefined libraries with an eye towards acquiring, managing, visualizing and performing basic analysis of sets of data. Lots of hands-on programming, both individually and with a partner.

**Change Management BUS 240 (UMPI)**

This course will analyze the forces that drive organizations to change, examine impediments to change, and survey a range of approaches for making organizational change more effective. This course provides practical skills for managing and leading change in your personal life and within any organization.





Vice Chancellor for  
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Date: October 5, 2022

To: Dannel Malloy, Chancellor  
University of Maine System (UMS)

From: Robert Placido, VCAA

*RAP*

Regarding: USM Program Proposal: B.S. In Industrial Engineering

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 the attached program proposal from the University of Southern Maine to offer the B.S. In Industrial Engineering. The attached material includes documentation of university level support including approval from President Jaqueline Edmondson as well as the full program proposal.

The proposed suspension of the B.S. In Industrial Engineering was reviewed and recommended by the Chief Academic Officer's Council (CAOC) on September 15, 2022. I also recommend this program for your approval.

I approve	I do not approve for the reasons listed below	Additional information needed for decision	Action
			Recommend the USM BS Industrial Engineering

  
Chancellor Dannel Malloy

10.5.22  
Date



## UNIVERSITY OF MAINE SYSTEM

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## PROGRAM PROPOSAL



# **Bachelor of Science in Industrial Engineering**

## University of Southern Maine

### Submitted By:

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September, 2022

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## PROGRAM OBJECTIVES

This proposal seeks to create a new **Industrial Engineering** degree program culminating in a **Bachelor of Science in Industrial Engineering**. The broad goal of the Industrial Engineering program is to address demand for industrial engineering professionals within the State of Maine. We will accomplish this goal by providing an accredited educational program that will graduate future leaders in engineering, business and systems optimization that can sustain Maine's growing industrial sectors. Our graduates will be able to solve complex problems in current and emerging industries of importance to Maine's economy including healthcare, manufacturing, business logics, transportation and tourism. The Industrial Engineering program will build upon the strong foundation of our existing industrial engineering concentration within the mechanical engineering program to provide focused training in operations research, systems modeling, statistics and management.

This proposal is a collaboration between various department and individuals across the University of Southern Maine and is vetted by established professionals within industrial and systems engineering programs nationally, including Ohio University, Roger Williams University and the University of Maine. The industrial engineering program will build on the established record of excellence of USM's Department of Engineering and capitalize on the common core established within the mechanical engineering and electrical and computer engineering programs. The program will seek ABET accreditation within six years of program inception.

## RATIONALE

The industrial engineering program will directly address the growing demand for industrial, systems and manufacturing job placements in Maine and the New England region. Recent research by Burning Glass Analytics has shown that industrial engineering job openings in Maine have risen 24% over 2015 levels and are expected to grow an additional 7% over the next 6 years. This growth rate outpaces the entire New England region.<sup>1</sup> Demand is expected to remain strong as the U.S. emerges into the post-COVID economy where emphasis on supply chain resiliency and a cohesive systems thinking approach to modern industry are highly valued.

The program will also contribute to the goals outlined in the Maine Department for Economic and Community Development's *Maine Economic Development Strategy 2020-2029* to grow local talent and attract new talent to Maine, especially around innovation in target technology sectors of biotechnology and manufacturing.<sup>2</sup> As such, industrial engineering has been highlighted in the Harold Alfond Foundation's prospectus agreement *Revitalizing the University of Maine System*, which states "The University of Maine and the University of Southern Maine...are committed to growing engineering for Maine, ..., including, for

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<sup>1</sup> Emsi Burning Glass Market Analytics "Industrial Engineering" (2021). Retrieved from: <https://www.emsibg.com>

<sup>2</sup> Maine Department of Economic and Community Development, *Maine Economic Development Strategy 2020-2029*, a focus on Talent and Innovation (2019). Retrieved from: [www.maineconomicdevelopment.com](http://www.maineconomicdevelopment.com)

instance, building a much-needed program in Industrial Engineering at USM”.<sup>3</sup> This new program will strengthen USM’s mission by providing high-quality education that will directly benefit the State and the companies within.

## PROGRAM GOALS

The proposed program directly addresses the growing demand for industrial, systems and manufacturing engineers in Maine and the New England region. The envisioned program is designed to offer a modern, generalist, curriculum in industrial engineering that prepares students to enter a wide variety of careers of importance to the Maine economy and its businesses now and into the future. Graduates will show evidence of the following traits in 3-5 years of establishment:

1. **Proficient Engineers:** *Successful in solving current and future industrial problems as evidenced by their career advancement.*

Graduates of the industrial engineering program will acquire the skills required, both technical and managerial, to become leaders in their parent organizations. The program will sustain national accreditation to ensure modern competencies. Graduates will be assessed on their job advancement status post-graduation.

2. **Industrious:** *Early in their career, acquire varied positions in a broad array of industries or graduate school as evidenced by their job/university placements, or through their entrepreneurial activities.*

Program alumni will be surveyed for time seeking employment post-graduation and the industry sectors entered into. Records will be maintained at the Department of Engineering. The program data will be internally evaluated yearly by the faculty and engineering advisory board to assess placement rates and the diversity of industry sectors.

## STUDENT OUTCOMES

Graduates of the industrial engineering program will be provided a rigorous undergraduate education preparing them for success in meeting existing and future challenges across a diversity of industries. The program provides foundational coursework in engineering science, mathematics, statistics, the sciences, communications, and business while holding true to the University of Southern Maine’s core curriculum values of being world-minded and intentional life-long learners. The program offers generalized studies in

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<sup>3</sup> University of Southern Maine Office of Public Affairs (October 8, 2020). Retrieved from: <https://usm.maine.edu/publicaffairs/harold-alfond-foundation-has-made-historic-commitment-240-million-university-maine>

industrial engineering, preparing graduates for workforce placement and graduate education. Graduates will be leaders, problem solvers and excellent communicators to their peers and the public.

Graduates of the program will be expected to:

1. Design a system or process to meet requirements within economic, social and physical constraints.
2. Identify, formulate, and communicate complex industrial problems and their solutions to a community of their peers and the general public.
3. Function on, and lead, multidisciplinary teams to meet project objectives.
4. Manage the scope, cost, timing and quality to successfully complete projects for stakeholders.

## EVIDENCE OF PROGRAM NEED

Industrial Engineering is a field with a particularly high unmet need in Maine, the New England region and at a national level. Industrial engineers focus on system efficiency, which applies broadly to production, manufacturing, healthcare, supply chain logistics, tourism and capital projects. They connect workers, materials, technology, and information in cost-effective and sophisticated ways. They are versatile engineers with the ability to work in a diversity of industries.

As the U.S. and the world rebuild supply chains in the post pandemic economic emergence, industrial engineers are expected to play an increasingly important role as the global economy undergoes convergence to *Industry 4.0*, a term popularized by engineer Klaus Schwab. During this convergence, increased joining of automation, artificial intelligence, machine-to-machine communication and industry are expected to rapidly shift technology, industries and social patterns. The United Nations Conference on Trade and Development (UNCTAD) stated that global investments in robotics-enabled automation, enhanced supply-chain digitization and additive manufacturing will shape international production going forward.<sup>4</sup> International investments of US\$137 billion were made in Southeast Asian nations alone in 2020 for Industry 4.0 preparedness.<sup>5</sup> For the U.S., New England and Maine to keep pace and participate in the future industrial economy, industrial engineering presence in Maine is highly desirable. Below are national, regional and state level data that provides compelling evidence of need for industrial engineers.

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<sup>4</sup> United Nations Conference on Trade and Development, World Investment Report 2020: International Production Beyond the Pandemic (2020). Retrieved from: <https://unctad.org/webflyer/world-investment-report-2020>

<sup>5</sup> Association of Southeast Asian Nations, ASEAN Investment Report 2020-2021: Investing in Industry 4.0. Retrieved from <https://unctad.org/publications-search?f%5b0%5d=product%3A584>

## NATIONAL DATA

The U.S. Department of Labor determined there were 292,000 jobs in industrial engineering in 2021.<sup>6</sup> These jobs had a median pay of \$95,300 per year and a mean salary of \$78,000 per year. The national industrial engineering demand is anticipated to grow by 14% over the next eight years, which is much faster than average growth across all sectors. This growth translates into an additional 40,000 new jobs that require a bachelor's degree in industrial, systems or manufacturing engineering or a closely related field. This new demand is in addition to the expected 23,300 job openings expected to be created due to retirements and career changes over the same period of time.

To meet this demand, the U.S. graduated approximately 5,817 baccalaureate industrial engineers into the workforce in 2021, far below demand figures nationally.<sup>7</sup> As such, industrial engineers are commonly recruited from other majors, such as mechanical or electrical engineering to fill the gap. Burning Glass Analytics reports that 90% of all industrial engineering related job postings require a bachelor's degree, while 25% advertise up to a master's degree.<sup>8</sup> The majority of jobs are advertised within the manufacturing sector (53%), while services, financial and information sciences account for a combined 26%. Interestingly, 22% of jobs are non-categorized indicating the diversity of career opportunities for industrial engineers in the workplace.

Common job titles recruiting industrial engineering majors nationally are manufacturing engineer (8,609 postings), quality engineer (7,655 postings), production manager (5,809 postings), site reliability engineer (3,243 postings), project engineer (3,429 postings) and industrial engineer (2,284 postings). The principal employers of industrial engineers are just as diverse as the job titles as see in the following list: Boeing Company (8,336 postings), Raytheon (4,551 postings), Actalent (3,031 postings), Anthem Blue Cross (2,585 postings), Capital One (2,371 postings) and Intel Corporation (1,814 postings). Employers operate in a diversity of economic sectors including manufacturing, defense, professional services, healthcare, insurance and finance.

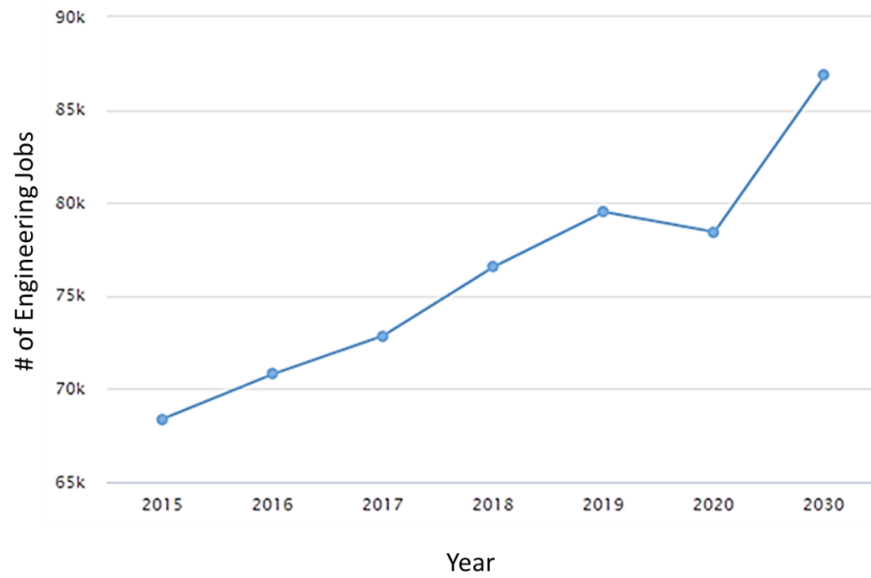
## NEW ENGLAND REGION DATA

There are only nine industrial engineering programs in New England (compared to 29 mechanical engineering and 21 civil engineering programs), none of which are in the Northern New England states of Maine, Vermont, and New Hampshire. Collectively the nine New England colleges conferred 220 industrial engineering bachelor's degrees in 2021. In contrast, the New England region is home to an estimated

<sup>6</sup> U.S. Bureau of Labor Statistics, Occupational Outlook Handbook: Industrial Engineers (2021). Retrieved from: <https://www.bls.gov/ooh/architecture-and-engineering/industrial-engineers.htm>

<sup>7</sup> College Factual website statistics (2022). Retrieved from: <https://www.collegefactual.com/majors/engineering/ie-industrial-engineering/rankings/highest-paid-grads/>

<sup>8</sup> Emsi Burning Glass Market Analytics "Industrial Engineering" (2021). Retrieved from: <https://www.emsibg.com>



**Figure 1:** Employment data for total number of industrial engineering related careers in the New England region. Data between years 2020 and 2030 are projected figures. (Source: Emsi Burning Glass Market Analysis, 2021)

78,438 related jobs and saw a total of 33,658 industrial engineering related job postings in the same period. Burning Glass Analytics further projects a 10.7% increase in job openings through 2030 totaling 8,511 new jobs. The career outlook for industrial engineers is strong as shown in the employment figures presented in Figure 1 for the New England region.

Job postings for industrial engineers in the New England region are principally in the manufacturing sector (58%), with services, financial and information sciences account for a combined 26%. As with national data, a large fraction (16%) of all jobs are uncategorized. Primary job titles were for manufacturing engineers (668 postings), quality engineers (651 postings), production engineers (295 postings) and project engineers (182 postings). Major employers in the region are Raytheon (1,182 postings), Humana (278 postings), Medtronic (256 postings), Takeda Pharmaceuticals (239 postings), Capital One (231 postings) and Dell (228 postings). Approximately 91% of the job postings required a bachelor's degree.



## STATE DATA

The USM Department of Engineering is dedicated to meeting the workforce needs of Greater Portland, Maine's largest and fastest growing metropolitan area. Its location gives it unique access to businesses and place-bound students who otherwise would be unable to study engineering. It cultivates students from Southern Maine Community College and other local sources.

In February 2017, USM administrators and engineering faculty convened a group of Southern Maine's largest employers of engineers, including Bath Iron Works, Pratt & Whitney, IDEXX, and S. D. Warren. They asked about the companies' current and future workforce needs, and how USM could help meet them. The feedback was clear: **"There is a lack of qualified people."** Employers reported taking months to find the right candidates and recruiting from out-of-state universities, particularly Massachusetts.

Maine industry leaders say they highly value the skills of industrial engineers. The Manufacturers Association of Maine reports that the most common request for consulting services is for industrial engineers (see attached letter of support in Appendix A). This demand is expected to grow as Maine companies continue to modernize, and sectors outside of manufacturing, such as healthcare, transportation/logistics or food retail, and tourism seek greater efficiency in their operations.

Burning Glass analytics have shown a total of 807 job postings for industrial engineers in Maine during the period from May 2021 to April 2022. They expected an average growth rate of 23% over the next 10 years. Of these jobs, 90% sought baccalaureate degrees. Maine's high growth rate is expected to far outpace the average growth rate for industrial engineers nationally at 1.23%. In addition, these engineers typically obtain high average starting wages (\$74,000/yr.) and become employed primarily by Maine's largest employers within healthcare, retail and manufacturing. Currently all of Maine's industrial engineers are recruited from out-of-state or are being filled by non-industrial engineers.

The largest advertising employers for industrial engineers in Maine in 2021 are Raytheon (47 postings), Humana (39 postings), Abbott Laboratories (23 postings), Pratt & Whitney (18 postings), IDEXX Laboratories (16 postings) and General Dynamics (14 postings). These jobs are primarily in the manufacturing sector (49%), but a significant fraction lay in the services, financial and information sciences, which combine for 37%.

The University of Southern Maine is well positioned to deliver an impactful degree program in industrial engineering. Located within the Portland metroplex area, the University is located within 25 miles of a majority of the State's largest employers including General Dynamics, IDEXX Laboratories, L.L.-Bean, MaineHealth, UNUM, Alere, among others as shown in Figure 2. The Portland metroplex is the economic engine of the State. Cumberland County alone produces over 35% of the economic output of the State

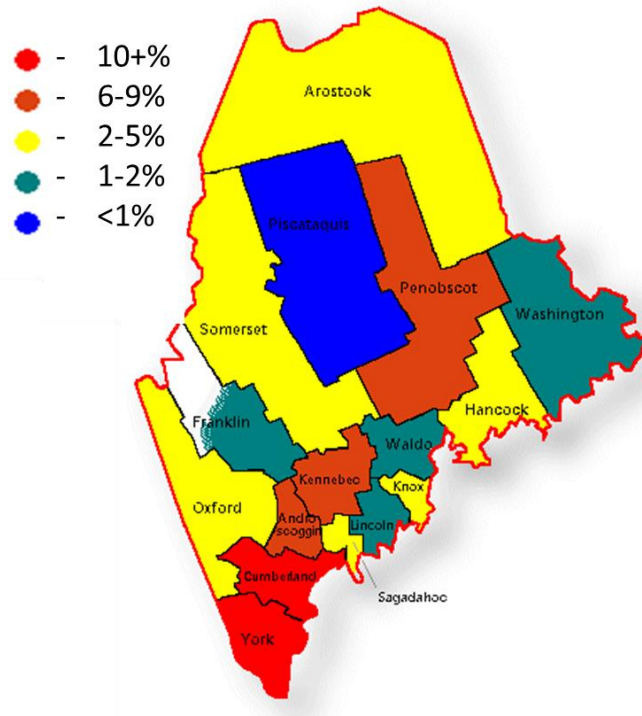


**Figure 2:** Map detailing the geographic locations of Maine's 18 largest employers with headquarters in Maine.<sup>9</sup>

equating to \$10.2 billion dollars annually.<sup>10</sup> York County accounts for an additional 12.3% of economic output and Androscoggin county 7.8% (Figure 3). Together, these 3 southern Maine counties account for over half of all Maine economic output. USM can build from its existing relationship with area employers to accelerate job placements for industrial engineering graduates in Maine.

<sup>9</sup> Maine Center for Workforce Research and Information, Top Private Employers in Maine by Average Monthly Employment (2022). Retrieved from: <https://www.maine.gov/labor/cwri/qcew3.html>

<sup>10</sup> Maine Center for Workforce Research and Information, County Profiles (2022). Retrieved from: <https://www.maine.gov/labor/cwri/county-economic-profiles/countyProfiles.html>



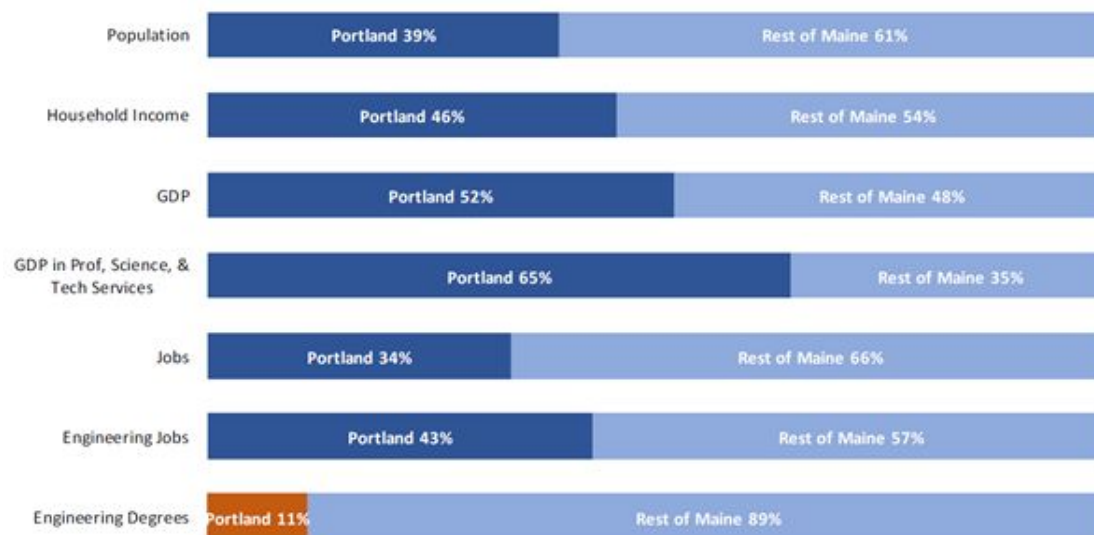
**Figure 3:** Map showing the distribution of Maine's economic output by county. The southern counties of York, Cumberland and Androskoggin account for over 50% total GDP.

## LOCAL DATA

Southern Maine businesses that employ engineers have repeatedly expressed to USM their need for more workers; their inability to find employees may be affecting the pace of growth in the region. Greater Portland is Maine's urban economic engine, generating nearly half of the state's gross domestic product (GDP). In 2020, the Portland metroplex generated \$34.4B compared to the State's \$69.3B<sup>11</sup>. By nearly every measure, this geographically small region generates an outsized amount of activity.

Two measures highlight the level of engineering activity in Greater Portland. GDP from engineering establishments alone is not available (and does not include the contributions of engineers in other industries) but is available for professional, scientific, and technical services, where 40% of engineers work. The table below shows that two-thirds (65%) of Maine's activity in that broad industry occurs in Greater Portland. Additionally, 43% of engineering jobs are in Greater Portland and just 11% of engineering degrees are awarded there.

<sup>11</sup> Fred Economic Data, Gross Domestic Product: All Industry Total in Maine (2022). Retrieved from: <https://fred.stlouisfed.org/series/MENGSP>



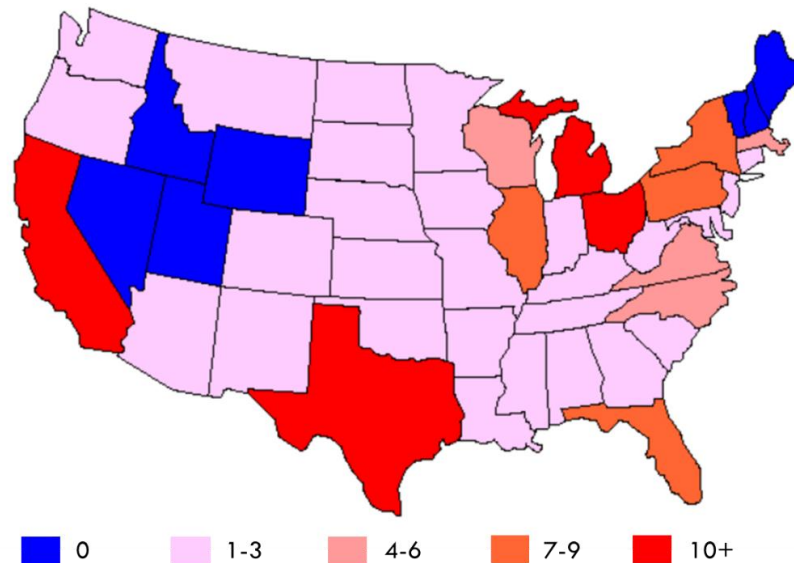
**Figure 4:** Chart detailing demographic and economic data comparing the Portland metroplex area to the remaining State. Source: U.S. Census Bureau, American Community Survey, 2011-2015 five-year average population for Maine and Portland-South Portland MSA; U.S. Bureau of Economic Analysis, Personal Income (2015) and Gross Domestic Product (2016) for Maine and Portland-South Portland MSA; U.S. Bureau of Labor Statistics, Occupational Employment Statistics jobs by occupation in Maine and Portland-South Portland MSA (May 2016); National Center for Educational Statistics, engineering bachelor's and graduate degrees conferred (2015-2016)

## SIMILAR PROGRAMS

We have identified a total of 156 colleges and universities nationally that offer undergraduate degrees in industrial engineering (IE, 99 total) and the closely related programs of systems engineering (SE, 31 total) or manufacturing engineering (ME, 26 total). The majority of these colleges are located in urban and manufacturing centers including California, Texas, Ohio and Michigan (Figure 5). Notably, there is an absence of programs in northern New England and the western states of Idaho, Wyoming, Nevada and Utah. The combined population of the northern New England region is estimated to be 3.38 million people, all of whom have no in-State access to industrial engineering education. In preparing this proposal, we performed a detailed survey of curriculum from 14 Universities from across the U.S. as presented in Appendix B.

The closest program to the Portland metroplex area is University of Massachusetts – Lowell located 100 miles away. This program was newly established in 2020 to meet the growing demand for industrial engineers in the region. It offers undergraduate and graduate degrees and is currently housed with the mechanical engineering department. The program is focused on manufacturing engineering with 15 credits focused on machining automation and manufacturing systems. Given the programs specialization in manufacturing engineering, it is categorized as a destination school for students targeting that industry and

is in stark contrast the envisioned industrial engineering proposed at USM, which offers a generalist approach emphasizing modern systems engineering with applications to manufacturing, but also to healthcare, business logistics and tourism.



**Figure 5:** Color map of the lower 48 U.S. States showing the density of programs in either industrial, systems or manufacturing engineering.

Massachusetts is the only State in New England with more than one industrial engineering program. The other institutions, in addition to UMass – Lowell, are Northeastern (IE), UMass – Amherst (IE), Western New England University (IE), Massachusetts Institute of Technology (IE,ME,SE) and Worcester Polytechnic Institute (ME & IE). Most of these programs offer their industrial engineering degree programs either directly through the mechanical engineering department or in close collaboration with that department. This approach is similar to the envisioned USM model which will keep industrial engineering within the general umbrella of the Department of Engineering.

## PROGRAM CONTENT

The bachelor's degree in industrial engineering provides a modern program to address the current and future needs of industries, especially in Maine. The degree program focuses on foundational and practical skills suitable for direct entry-level professional workforce placement in a diversity of industrial fields, or to enter into graduate studies. Graduates will be capable of using modern software and analytical tools to solve complex problems in healthcare, manufacturing, business logistics and tourism. Students will further gain an appreciation for historical perspectives in industrial engineering and understand the vital role industrial engineers play in the nation's infrastructure.

The program builds heavily from existing courses at USM. Collaborations between the Department of Engineering, the School of Business and the Department of Mathematics and Statistics have developed a cross-cutting curriculum where students take targeted upper-level courses in mathematics and business (12 credits minimum) in addition to newly created industrial engineering courses (INE-designation, 15 credits minimum). As such, the total new faculty load and new course offerings can be minimized while affording the graduates a comprehensive industrial engineering experience.

Industrial engineers often work at the interface of humans and machines. Therefore, a practical understanding of human sociology, biomechanics and ergonomics is essential for success. The degree program requires the completion of Introduction to Sociology (SOC 100) as well as course work in engineering statics (MEE 150) and Human Factors (INE 362). The human and machine interface concepts are reinforced with a hands-on laboratory experience Work Design/Human Factors Laboratory (INE 369). Together, these courses lay the foundation for Facility Design (INE 461).

Industrial engineers are principally concerned with process efficiency and the reduction of waste. Therefore, graduates of the USM program will be provided skillsets in the utilization of software and analytical tools to optimize systems performance to reduce cost and time while maximizing value and quality. Students will develop a deep understanding of probability and statistical concepts and apply that knowledge to real world systems and data to make strategic planning and capital improvement decisions. Students will be required to take Probability and Statistics (MAT 380) and Engineering Statistics (EGN 481) as foundational courses in statistics. Students will apply this knowledge to develop Deterministic Models in Operations Research (MAT 366) and Systems Modeling and Simulation (MAT 383) to contextualize the use of mathematical tools in an industrial setting. Hands-on approaches to the minimization of waste and process control will be developed through application of Principles of Lean Six Sigma (INE 462) and the associated Lean Facility Inventory Laboratory (INE 469).

## CATALOG DESCRIPTION: B.S. IN INDUSTRIAL ENGINEERING

The industrial engineering program provides a broad scientific and engineering design foundation to be successful in a variety of industrial pursuits including manufacturing, healthcare, transportation and logistics. The industrial engineer develops and maintains optimum systems to address complex industrial operations. The industrial engineer must be well versed in basic engineering science, math and statistics and have excellent communication skills.

The industrial engineering program will seek accreditation by the EAC (Engineering Accreditation Commission) of ABET (formerly the Accreditation Board for Engineering and Technology). Graduates of the program are prepared to:

1. Design a system or process to meet requirements within economic, social and physical constraints.

2. Identify, formulate, and communicate complex industrial problems and their solutions to a community of their peers and the general public.
3. Function on, and lead, multidisciplinary teams to meet project objectives.
4. Manage the scope, cost, timing and quality to successfully complete various projects for stakeholders.

## PROGRAM REQUIREMENTS

The B.S. degree in industrial engineering requires 66.5 credits within the engineering core curriculum which includes basic engineering science, basic sciences, foundational mathematics and statistic courses, as well as USM's core curriculum requirements. Graduates will further complete 46 credits of industrial engineering core courses, plus 12 credits of approved technical electives totaling 58 credits. Total minimum course requirements to complete the industrial engineering degree program is 124.5 credits. A listing of required courses within the engineering core and industrial engineering core is provided below. Approved technical electives outside of the engineering department are also listed.

### **B.S. in Industrial Engineering**

Total Credits – 124.5

#### **Engineering Core Curriculum: 66.5 credits including**

ENG 100	3	College Writing
ENG 102	3	2 <sup>nd</sup> level writing requirement (prereq ENG 100)
PHY 121	4	General Physics 1 (coreq. MAT 152)
PHY 114	1	General Physics 1 lab
PHY 123	4	General Physics 2 (prereq. PHY 121)
PHY 116	1	General Physics 2 lab (prereq. PHY 121, PHY 114)
GEN EDx	3	USM Core: Cultural Interpretation (CI)
GEN EDx	3	USM Core: Diversity (Satisfied in conj. with CI)
EGN 182	1	Engineering Tools: Solidworks
EGN 18x	1	Engineering Tools elective
EGN 160	4	Introduction to C++ Programming
EGN 248	4	Introduction to Differential Equations and Linear Algebra (prereq. MAT 153)
EGN 304	3	Engineering Economics – USM Core: Ethical Inquiry (prereq. MAT 152)
EGN 401	3	Senior Design Project I (prereq. ITP 210, EGN 182, THE 170, EGN 304)
EGN 402	3	Senior Design Project II – USM Core: Capstone (prereq. EGN 401)
ELE 216	3	Circuits 1: Steady-State Analysis (prereq. PHY 123)
ELE 217	3	Circuits 2: System Dynamics (prereq. ELE 216)
ELE 219	1	Circuits Laboratory (prereq. ITP 210, coreq. ELE 217)
MAT 152	4	Calculus A – USM Core: Quantitative Reasoning
MAT 153	4	Calculus B (prereq. MAT 152)
MAT 380	3	Theory of Probability and Statistics (prereq. MAT 153)
ITP 210	3	Technical Writing – USM Core: 3 <sup>rd</sup> level writing requirement (prereq. ENG 100)
THE 170	3	Public Speaking – USM Core: Creative Expression
CHY 113	3	Principles of Chemistry I – USM Core: Science Exploration
CHY 114	1.5	Laboratory Techniques I – USM Core: Science Exploration

**Industrial Engineering Core: 46 credits**

EGN 184	1	Engineering Tools: Industrial Engineering
EGN 188	1	Engineering Tools: Machine Tools Processing
ITP 230/BUS 373	3	Project Management – USM Core: International (if ITP 230)
INE 461	3	Facility Design (prereq. INE 361, MAT 383)
INE 361	3	Work Design (prereq. EGN 184, MEE 150)
EGN 481	3	Engineering Statistics (prereq. (MAT 380)
MAT 145	3	Discrete Mathematics I (prereq. MAT 152)
MAT 366	3	Deterministic Models in Operations Research (prereq. EGN 248)
MAT 383	3	Systems Modeling and Simulation (prereq. MAT 380)
INE 462	3	Principles of Lean Six-Sigma (prereq. EGN 481)
INE 362	3	Human Factors (prereq. SOC 100, INE 361)
BUS 375	3	Production/Operations Management (prereq. MAT 380, EGN 304)
INE 469	1	Lean Facility Inventory Lab (prereq. INE 461, coreq. INE 462)
INE 369	1	Work Design/Human Factors Lab (prereq. INE 361, coreq. INE 362)
MEE 150	3	Applied Mechanics: Statics (prereq. PHY 121)
MEE 230	3	Thermodynamics 1: Laws and Properties (prereq. MAT 153, PHY 121)
EGN 260	3	Materials Science for Engineers (prereq. CHY 113, PHY 123, MAT 153)
SOC 100	3	Introduction to Sociology – USM Core: Socio-Cultural Analysis

**Technical Electives: 12 Credits** (chose 4 from the following pool)

Any engineering course 300-level or above

MAT 461	3	Stochastic Modeling in Operations Research
MAT 496	3	Introduction to Data Science
STA 564	3	Queuing Networks
BUS 372	3	Supply Chain Management
BUS 374	3	Purchasing and Procurement

*Additional three credit electives relevant to industrial engineering and offered at the 300-level or higher may be considered based on additional program meetings and/or student request.*

**General Education Elective: 3 Credits** (Recommended to choose 1 from the following pool to meet simultaneously the cultural interpretation and diversity requirements)

MUH 105	3	Multicultural Perspectives on American Popular Music and Jazz
WGS 201	3	Rethinking Gender and Culture

**Grade Policy:** Students must achieve a cumulative 2.0 grade point average (GPA) from all courses that count toward fulfillment of the major requirements. Students will be placed on academic probation for failure to maintain a minimum cumulative GPA of 2.0. Students failing to rectify the GPA deficiency within a one-year probation period will be removed from the B.S. in industrial engineering major. Upon rectifying the GPA deficiency, students can reapply for admission to the major.

**Graduation Requirements:** Students will graduate with a bachelor of science in industrial engineering when the following requirements are satisfied:

- Minimum cumulative GPA of 2.0
- Completion of all University of Southern Maine core curriculum requirements
- Minimum cumulative GPA of 2.0 within engineering courses
- Completion of 124.5 credits

**Transfer Policy:** The industrial engineering degree program will participate in the Maine Engineering Pathways Program, which allows program participants to study for one year towards an engineering



degree at a participating University of Maine System campus and then transfer to the University of Southern Maine. More information about the Maine Engineering Pathways Program can be found at the following weblink: <https://usm.maine.edu/engineering/maine-engineering-pathways-program>

Industrial engineering will also seek to complete a transfer articulation agreement with Southern Maine Community College (SMCC) for a 2+2 program resulting in a B.S. in industrial engineering from USM. SMCC currently offers an Associate of Science in Engineering, which satisfactorily prepares transfer students from SMCC to enter into the industrial engineering degree program at USM at the junior level. Transfer articulation agreements currently exist for the electrical, computer and mechanical engineering degree programs.

**Admissions Information:** No additional admissions criteria above existing USM policies are required.

## COURSE DESCRIPTIONS

Seven new courses are required to complete the industrial engineering degree program. The courses have been identified through extensive discussions with program collaborators and review of competitor course listings. The following courses and descriptions represent a broad industrial engineering curriculum covering the fundamentals of the field and preparing students for advanced courses at the graduate level as well as a diversity of technical electives. Catalog course descriptions for each course are detailed below.

### **EGN 184      Engineering Tools: Industrial Engineering**

An introduction to systems thinking and problem solving tools used in industry engineering. Spreadsheet design, calculation and data organization with applications to optimization, methods of analysis and system design. Basic database query, data mining, data visualization and reporting according to industry standards. Foundational concepts of Industrial Engineering are introduced to motivate skills learning. Cr. 1.

### **INE 361      Work Design**

Work analysis and design to improve material handling systems for productivity, performance and safety. Pre-determined time systems, performance rating, work sampling and work flow. Motion and time studies using standard techniques in industrial engineering. Prerequisites: EGN 184, MEE 150. Cr. 3.

### **INE 362      Human Factors**

A study of human-machine interaction and the accident cause-effect relationship. Physical ergonomics, cognitive ergonomics, macroergonomics and preventative care as they relate to workstations and process design. Safety decision-making analysis in consideration of legal, management and technical aspects of industrial safety. Prerequisites: SOC 100, INE 361. Cr. 3.

### **INE 369      Work Design and Human Factors Laboratory**

Application of work design and human factors analysis in a laboratory setting. Methods of measurement and data analysis to aid the industrial design process. Prerequisite: INE 361; co-requisite: INE 362. Cr. 1.

### **INE 461      Facility Design**

An introduction to the planning and design of facilities. Principles of management, facility organization and work environment planning. Capacity and technology selection, equipment and manpower requirements. Plant layout and support activities analysis including receiving, inventory management, material handling, warehousing and maintenance planning. Prerequisites: INE 361, MAT 383. Cr. 3.

**INE 462 Principles of Lean Six Sigma**

Fundamental concepts of lean six sigma for continuous improvement approaches in modern industries. Lean methods including value-stream mapping, control charting, continuous flow, Kanban and A3 will be developed. Basic techniques for statistically-based process improvement using the DMAIC process will be applied to real world situations. Prerequisites: EGN 481. Cr. 3

**INE 469 Lean Facility Inventory Laboratory**

Application of facility design and lean six sigma principles to real world data for continuous improvement. Prerequisites: INE 461; co-requisites: INE 462. Cr. 1.

## INDUSTRIAL ENGINEERING COURSE SEQUENCE

Students are expected to complete the industrial engineering degree program within 4 years assuming fulltime enrollment. A recommended course sequence is provided in Table I below. The recommended course sequence has been developed to ensure all University of Southern Maine core curriculum requirements and course prerequisites are met, while adhering to established Department of Engineering core course offerings. The course sequence should not be considered a rigid requirement for the student. In fact, the industrial engineering core courses have a limited number of prerequisites which allows students great flexibility in their degree program to afford strategic enrollment in technical electives to meet their interests. A curriculum map of industrial engineering courses as they compare to the established programs in electrical and computer engineering as well as mechanical engineering is provided in Appendix C.

**Table I:** Recommended course sequence for the completion of the industrial engineering degree program.

FRESHMAN YEAR			
FALL SEMESTER		HOURS	NOTES
<b>MAT 152</b>	Calculus A	4	Quantitative Reasoning
<b>PHY 121</b>	General Physics 1	4	
<b>PHY 114</b>	General Physics 1 - Lab	1	
<b>ENG 100</b>	College Writing	3	Level 1 Writing
<b>CHY 113</b>	Principles of Chemistry 1	3	Scientific Exploration
<b>CHY 114</b>	Principles of Chemistry 1 - Lab	1.5	
SPRING SEMESTER		HOURS	NOTES
<b>ENG 102</b>	Academic Writing	3	Level 2 Writing
<b>EGN 184</b>	Engineering Tools: Industrial Engineering	1	
<b>PHY 123</b>	General Physics 2	4	
<b>PHY 116</b>	General Physics 2 - Lab	1	
<b>MAT 153</b>	Calculus B	4	
<b>ITP 210</b>	Technical Writing	3	Level 3 Writing
SOPHOMORE YEAR			
FALL SEMESTER		HOURS	NOTES
<b>EGN 160</b>	Introduction to C++ Programming	4	
<b>EGN 182</b>	Engineering Tools: Solidworks	1	

<b>MEE 150</b>	Applied Mechanics: Statics	3	
<b>MAT 145</b>	Discrete Mathematics I	3	
<b>ELE 216</b>	Circuits I: Steady State Analysis	3	
<b>SOC 100</b>	Introduction to Sociology	3	Socio-Cultural Analysis
<b>SPRING SEMESTER</b>		<b>HOURS</b>	<b>NOTES</b>
<b>EGN 248</b>	Intro. Differential Eq. and Linear Alg.	4	
<b>MAT 380</b>	Theory of Probability and Statistics	3	
<b>MEE 230</b>	Thermodynamics I: Laws and Properties	3	
<b>ELE 217</b>	Circuits 2: System Dynamics	3	
<b>ELE 219</b>	Circuits Laboratory	1	
<b>EGN 188</b>	Engineering Tools: Materials Processing	1	
<b>JUNIOR YEAR</b>			
<b>FALL SEMESTER</b>		<b>HOURS</b>	<b>NOTES</b>
<b>THE 170</b>	Public Speaking	3	Creative Expression
<b>Technical Elective</b>	Engineering Elective (>300 level)	3	
<b>INE 361</b>	Work Design	3	
<b>MAT 366</b>	Deterministic Models in Operat. Research	3	
<b>GEN EDx.</b>	General Education Elective	3	Cultural Interpretation/Diversity
<b>SPRING SEMESTER</b>		<b>HOURS</b>	<b>NOTES</b>
<b>Technical Elective</b>	Engineering Elective (>300 level)	3	
<b>ITP 230/(BUS 373)</b>	Project Management	3	International (If ITP 230)
<b>MAT 383</b>	Systems Modeling and Simulation	3	
<b>INE 362</b>	Human Factors	3	
<b>INE 369</b>	Human Factors/Work Design Lab	1	
<b>EGN 304</b>	Engineering Economics	3	Ethical Inquiry
<b>SENIOR YEAR</b>			
<b>FALL SEMESTER</b>		<b>HOURS</b>	<b>NOTES</b>
<b>EGN 401</b>	Senior Design Project I	3	
<b>INE 461</b>	Facility Design	3	
<b>EGN 260</b>	Material Science for Engineers	3	
<b>EGN 481</b>	Engineering Statistics	3	
<b>Technical Elective</b>	Engineering Elective (>300)	3	
<b>SPRING SEMESTER</b>		<b>HOURS</b>	<b>NOTES</b>
<b>EGN 402</b>	Senior Design Project II	3	Capstone
<b>INE 462</b>	Principles of Lean Six Sigma	3	
<b>INE 469</b>	Lean Facility/Inventory Lab	1	
<b>BUS 375</b>	Production/Operations Management	3	
<b>Technical Elective</b>	Engineering Elective (>300)	3	
<b>EGN 18x</b>	Engineering Tools elective	1	

## PROGRAM RESOURCES

The industrial engineering program has received considerable interest from faculty across the University of Southern Maine, the University of Maine System and external collaborators. Below is a list of individuals who have been consulted in the preparation of this program proposal and expressed interest in supporting the development of the new major. They include a working group housed within the Department of Engineering, which includes faculty from the USM School of Business, the Department of Mathematics and Statistics as well as external faculty from the University of Maine – Orono, Roger Williams University and Ohio University. A compilation of Curriculum Vitae for all industrial engineering program developers is provided in Appendix D.

Dr. Scott J. Eaton, Assistant Professor of Mechanical Engineering, Department of Engineering, 222 John Mitchell Center, College of Science, Technology, and Health, Gorham. Email: [scott.eaton@maine.edu](mailto:scott.eaton@maine.edu), Phone: 207-780-5785.

Dr. Asheesh R. Lanba, Assistant Professor of Mechanical Engineering, Department of Engineering, 131 John Mitchell Center, College of Science, Technology, and Health, Gorham, Email: [Asheesh.lanba@maine.edu](mailto:Asheesh.lanba@maine.edu), Phone: 207-780-5582.

Dr. Michael P. Davis, Lecturer of Mechanical Engineering, Department of Engineering, 220 John Mitchell Center, College of Science, Technology, and Health, Gorham, Email: [michael.p.davis@maine.edu](mailto:michael.p.davis@maine.edu), Phone: 207-780-5956.

Dr. Carlos Lück, Department Chair and Associate Professor of Electrical Engineering, Department of Engineering, 129 John Mitchell Center, College of Science, Technology, and Health, Gorham, Email: [carlosl@maine.edu](mailto:carlosl@maine.edu), Phone: 207-780-5583.

Dr. Amarpreet Kohli, Associate Professor of Operations and Supply Chain Management, School of Business, Luther Bonney 221, College of Management and Human Service, Portland. Email: [amarpreet.kohli@maine.edu](mailto:amarpreet.kohli@maine.edu), Phone: 207-780-4305.

Dr. Nihar Kumthekar, Assistant Professor of Operations and Supply Chain Research, School of Business, Luther Bonney 222, College of Management and Human Service, Portland. Email: [nihar.kumthekar@maine.edu](mailto:nihar.kumthekar@maine.edu), Phone: 207-780-4310.

Dr. Muhammad El-Taha, Professor of Operations Research, Department of Mathematics and Statistics, College of Science, Technology, and Health, Portland. Email: [el-taha@maine.edu](mailto:el-taha@maine.edu), Phone: 207-780-4564.

Dr. Dušan Šormaz, Professor and Undergraduate Chair, Department of Industrial and Systems Engineering, Stocker Center 284, Ohio University, Russ College of Engineering and Technology, Athens OH. Email: [sormaz@ohio.edu](mailto:sormaz@ohio.edu), Phone: 740-593-1545.

Dr. Bashir Khoda, Assistant Professor of Mechanical Engineering, Department of Mechanical Engineering, 208 Boardman Hall, University of Maine, College of Engineering, Orono ME. Email: [bashir.khoda@maine.edu](mailto:bashir.khoda@maine.edu), Phone: 207-581-5183.

Dr. Andrew Schoenberg, Part-Time Professor of Engineering, Department of Engineering, 149 John Mitchell Center, College of Science, Technology, and Health, Gorham. Email: [andrew.schoenberg@maine.edu](mailto:andrew.schoenberg@maine.edu), Phone: 207-780-4743.

Dr. Linda Ann Riley. Roger Williams University (Retired) and Part-Time Professor of Engineering, Department of Engineering, 149 John Mitchell Center, College of Science, Technology, and Health, Gorham. Email: [linda.riley@maine.edu](mailto:linda.riley@maine.edu), Phone: 207-780-5287.

Dr. Ivan Most, Part-Time Associate Professor of Mechanical Engineering, 149 John Mitchell Center, College of Science, Technology, and Health, Gorham. Email: [ivan.most@maine.edu](mailto:ivan.most@maine.edu), Phone: 207-780-5287.

Dr. Mustafa Guvench, Professor of Electrical Engineering, Department of Engineering, 123 John Mitchell Center, College of Science, Technology, and Health, Gorham, Email: [guvench@maine.edu](mailto:guvench@maine.edu), Phone: 207-780-5581.

The program committee has also been in communication with a number of industrial partners regarding establishment of the program, and we received positive feedback and letters of support (see Appendix A) from the organization and contacts listed below. Each person has expressed enthusiasm for future collaboration with the program and possible development of graduate and internship placements programs with USM.

Maureen Lafferty, VP – Talent, Development and HR Business Teams, L.L.Bean, Inc. Email: [mlafferty@llbean.com](mailto:mlafferty@llbean.com)

Lisa G. Martin, Executive Director, Manufacturers Association of Maine. Email: [lisa@mainemfg.com](mailto:lisa@mainemfg.com)

Susan Ahern, Vice President of Innovation, MaineHealth. Email: [susan.ahern@mainehealth.com](mailto:susan.ahern@mainehealth.com)

Ryan McCauley, Quality Manager, Howell Laboratories Inc. Email: [mmcauley@howelllabs.com](mailto:mmcauley@howelllabs.com)

## LIBRARY

The library and other learning resources will be identical to those required for current students within the electrical and computer engineering and mechanical engineering programs. No additional library resources are expected to service the industrial engineering degree program.

## EQUIPMENT

Existing equipment available to support the industrial engineering program is detailed below. In the Mechanics of Materials lab (JMC 184) and the Thermo-Fluids lab (JMC 190) equipment includes an Instron uniaxial tensile testing machine (60 kN load frame), a Charpy Impact testing machine for material testing and numerous PASCO data acquisition and monitoring components for independent laboratory

explorations. In the Electrical Power and Machinery laboratory (JMC 173) and Robotics and Intelligent Systems laboratory (JMC 165), equipment includes DC machines, DC dynamometers, AC synchronous machines, AC induction motors, assorted handheld components, as well as robotic equipment including a Rug Warrior mobile platform, 5-dof Microbot Teachmover (10 units), 6-dof Stäubli R60, a Pendubot, and 3 units of Adept-based Scara robots.

The JMC machine shop and skunk works have several machine tools including lathes, milling machines, saws, and a CNC machine. It is also equipped with a precision measuring machine. These facilities are used by students who work on their senior projects or term projects (EGN 401, EGN 402, and EGN 403). Additive manufacturing equipment in the JMC includes 1 large format printer, 1 Makerbot Z18 PLA 3D printer, 2 Lulzbot Taz 3D printers and 2 flashforge finder 3D printers.

The laboratories leveraged on the Portland Campus include the Composites Engineering Research Lab (CERL, in SCI 073 and 074, used for MEE 352 and EGN 482) and the Maker Innovation Studio (MIST, in SCI 571). The CERL space is equipped with a 100 KN load frame, Dynamic Mechanical Analyzer (DMA), rheometer, Thermo-Mechanical Analyzer (TMA), Differential Scanning Calorimeters (DSC), ThermoGravimetric Analyzer (TGA), a 3D optical profilometer, Fourier Transform Infrared Spectrometer (FTIR), grinder/polisher, goniometer, microscopes, and non-destructive IR imaging. The manufacturing capabilities at CERL include regular and vacuum ovens, thermoformer, and vacuum forming system. The MIST Fab-Lab includes equipment for 3D printing, CNC milling, laser cutters, vinyl cutters, digital embroidery machines, sewing machines, UV printer, sublimation printer, vacuum former, thermoformer, furnace, and power tools. MIST has a media lab that can be used for educational and information workshops. MIST also has a digital-immersion lab that includes an HTC vive, Oculus Quest, digital drawing tablets, Microsoft Hololens, and computers for game and app development. Furthermore, MIST has a SolidWorks professional license, which can be used for generating CAD drawings.

The existing equipment is adequate to service the industrial engineering program at its inception. Strategic investments in capital equipment are likely to be pursued beginning in years 3-5 under the guidance and recommendation of newly hired industrial engineering program faculty. Capital equipment expenses are budgeted in the Pro Forma section of this program proposal and are anticipated to be procured using departmental operational funds based on program revenue projections.

## FACILITIES

The industrial engineering program will be located in the John Mitchell Center on USM's Gorham campus and will leverage existing laboratory spaces in the Science Building on the Portland campus. The John Mitchell Center is a 60,500 ft<sup>2</sup> building that houses the Departments of Engineering and Technology and select offices for the Department of Mathematics and Statistics. The Department of Engineering currently maintains six laboratory spaces suitable for the industrial engineering program. Specific laboratory space include the Thermo-Fluids Lab (JMC 190), the Circuits Lab (JMC 152), the Mechanics and Materials Lab (JMC 184) and JMC 164, 246 and 242. The Composites Engineering Research Labs (SCI 073 and 074) in the Science Building on the Portland campus are currently used for instruction in the Industrial Engineering concentration and will continue to be available to the degree program. Other open space available to

the Industrial Engineering program includes JMC 242 and JMC 119 and the back of JMC 181 for project work and faculty research.

The Department of Engineering also maintains a number of computer labs. The Computer Aided Design Lab (JMC 270), Thermo-Fluids lab (JMC 190), Circuits Lab (JMC 152), Mechanical Engineering Lab (JMC 184), and the CIE Lab (JMC 147) collectively support 68 desktop computers that can be used for classroom instruction, course projects and research. The computers are sufficient to initiate the Industrial Engineering program. The Department of Engineering currently maintains a number of engineering software site licenses including SolidWorks, Matlab, LabVIEW, Ansys, Mathematica, Microsoft Visio, Microsoft Project, among others, which can be utilized by the Industrial Engineering program.

The John Mitchell Center is also well equipped with instructional classrooms including 4 zoom-enabled classrooms and a 48 seat auditorium, which is sufficient to initiate the Industrial Engineering program due to the high number of engineering core courses that will be shared across the Engineering curricula.

## COOPERATION WITH OTHER PROGRAMS

The industrial engineering degree program benefits from strong collaborations formed with departments across the University of Southern Maine campuses. As stated previously, the proposed industrial engineering program takes advantage of synergies from within the School of Business and the Department of Mathematics and Statistics to develop a modern industrial engineering curriculum with minimal new resources or courses requested. Below we outline the collaborations formed across the University of Southern Maine campuses and identify opportunities for cross-departmental scholarship and future curriculum development.

Strategic cooperation with the School of Business involves utilization of existing business courses as well as alignment of scholarship pursuits amongst the business and engineering faculty. Two faculty from the School of Business, Dr. Amapreet Kohli and Dr. Nihar Kumthekar, are both degree holding industrial engineers with deep knowledge and experience in the field. Two courses, Project Management (BUS 373) and Production/Operations Management (BUS 375) are required courses within the degree program as core industrial engineering courses. Additionally, a number of Business courses have been pre-approved as technical electives to the program; Supply Chain Management (BUS 372) and Purchasing and Procurement (BUS 384). Incorporation of these courses has been determined to be beneficial to both departments. Cross-department research and scholarship opportunities have further been identified. For example, Senior Design Project II (EGN 402) is a one semester course that is instructed by an engineering professor, but it accepts approved projects from supervisors, many of which are expected to originate from the School of Business faculty.

Within the Department of Mathematics and Statistics, Dr. Muhammad El-Taha has developed and regularly delivers courses in Deterministic Models in Operation Research (MAT 366) and Systems Modelling and Simulation (MAT 383). Each course will be a required component of the industrial engineering core curriculum. Discussions have indicated that existing enrollments in these classes can accommodate the addition of industrial engineering students through the first few years of the program

offering. Two additional courses Stochastic Modelling in Operations Research (MAT 461) and Introduction to Data Science (MAT 496) have also been pre-approved as technical electives in industrial engineering.

The program also benefits from strong relationships with the Department of Technology and the Department of Sociology. The Department of Technology regularly teaches courses in Technical Writing (ITP 210) which is currently taken by all engineering students in the electrical, computer and mechanical programs. Project Management (ITP 230) is an industrial engineering core course that will fulfill the international requirement of USM's core curriculum requirements. Each course (ITP 210 and 230) is currently offered each semester and has been confirmed by the Department Chair, Mark Monnin, to be able to accommodate the addition of industrial engineering students. Conversations with Dr. Wendy Chapkis, chair of the Department of Sociology, has confirmed that Introduction to Sociology (SOC 100) can also accommodate the addition of industrial engineering students and expressed enthusiasm for exploring additional scholarship and curriculum collaboration opportunities.

The industrial engineering program team has also communicated across all service departments to ensure existing course offerings and sections can adequately accommodate the anticipated new enrollments. The following list summarizes the departments and chairs who have been contacted. Each chair has communicated positively to the prospects of a new degree program in industrial engineering and has confirmed inclusion of new enrollments in the stated courses.

- Dr. Bruce MacLeod, Chair, Department of Computer Science (COS 160)
- Dr. Shelton Waldrep, Chair, Department of English (ENG 100, ENG 102)
- Dr. Meg Hausman, Chair, Department of Chemistry (CHY 113 and Lab)
- Prof. Sara Valentine, Chair, Department of Theatre (THE 170)
- Dr. Julie Ziffer, Chair, Department of Physics (PHY 121, PHY 123 and Labs)
- Dr. Silvia Valdes-Leon, Chair, Department of Mathematics and Statistics (MAT 152, MAT 153, MAT 380, MAT 145)

## TOTAL FINANCIAL CONSIDERATION

The industrial engineering program will benefit from synergistic activities across the University of Southern Maine and from the existing infrastructure, faculty and staff within the College of Science, Technology, and Health and the Department of Engineering. The industrial engineering program will leverage many existing courses from within the Department of Engineering, Department of Mathematics and Statistics, Department of Technology and the School of Business. As a point of reference, of the 124.5 credits being recommended for the industrial engineering degree, all but 15 credits are from existing courses in the University catalog. The newly proposed industrial engineering courses are all listed as 300-level or higher and are intended for junior year students. As such, existing University faculty can successfully deliver the first two years of the industrial engineering curriculum serving as a bridge to establish the program and accept enrollments while the program recruits new faculty as the program grows.

**New Personnel:** Industrial engineering at USM is anticipated to be nationally accredited and a leading regional program. The industrial engineering faculty are expected to generate regionally recognized scholarship, develop strategic industrial relationships and provide a respected academic program



benefitting communities within Maine. To meet these goals, we anticipate adding two tenure-track faculty lines over the first five years of the program. These faculty will not only be responsible for the program execution and growth into the future, but are required positions to achieve ABET accreditation expected to take place in AY 27-28. The new faculty is expected to be 100% supported by enrollments gained over the first two years of program offerings. See the five year pro forma for specific details of costs and timing.

- **Faculty Line #1** - The first tenure-track faculty member will be recruited in a national search and ideally provide leadership for the program, teach courses broadly across the curriculum, advise students, and specialize or perform scholarship in either human factors or work design. The new faculty member will be recruited beginning in year two of the program with salary starting in year three.
- **Faculty Line #2** - The second tenure-track faculty member will be recruited in a national search and ideally teach courses broadly across the curriculum, advise students, and specialize or perform scholarship in either lean processes or facility design. The new faculty member will be recruited beginning in year three of the program with salary starting in year four.

**Infrastructure:** No additional infrastructure investments are required for the industrial engineering program. The John Mitchell Center on USM's Gorham campus currently houses the Department of Engineering, Department of Technology and portions of the Department of Mathematics and Statistics. The center houses numerous laboratories and classrooms (previously listed) that can be leveraged to meet the needs of the new industrial engineering program. Important classrooms include JMC 217 (lecture hall), JMC 252 (technology enabled classroom), JMC 181/185 (machine shop and manufacturing laboratories), JMC 270 (computer-aided design laboratory). The facilities are robust enough to accommodate new instruction requirements.

**Staff:** No additional staff are required for the industrial engineering program. The Department of Engineering currently employs three staff members and multiple student assistants annually to meet its work load. These staff are expected to be leveraged to meet the program needs from its inception through the five year start-up period. Future enrollments will determine the need for additional staff beyond the current projection. A list of existing staff resources is provided below.

- A full-time administrative assistant helps manage departmental operations, archive information and develop academic reports. The administrative assistant can be leveraged to support the industrial engineering program.
- A full-time mechanical technician responsible for all mechanical laboratory operations and maintenance. The position also provides safety and oversight to all spaces within the John Mitchell Center. The mechanical technician can be leveraged to support the establishment and operations of the industrial engineering laboratories.
- A part-time electrical technician who is responsible for electrical laboratory operations and maintenance. The staff member will be leveraged to supply electrical support to the industrial engineering program and laboratory spaces.

**Additional Costs:** In addition to the personnel costs, we expect to need funding for student undergraduate scholarships, accreditation expenses, and on-going marketing costs to promote the program.

## FUNDING SOURCE(S)

The creation of the industrial engineering program at the University of Southern Maine is anticipated to be funded completely through enrollment tuition and fees. This is only possible due to the extensive synergistic infrastructure developed within the Department of Engineering and the cross-college collaborations formed with the School of Business and the Department of Mathematics and Statistics. The program expects to accept enrollments starting in Fall 2023. Students entering the industrial engineering program will be serviced by existing courses, resources and faculty through the Spring 2025 semester. Fall 2025 will be the first investment requirement for new faculty to provide the upper-level industrial engineering course offerings, at which time enrollment revenues are expected to cover new faculty line costs. The program is anticipated to be sustainable and cost neutral from its inception. Additional faculty lines will only be requested after student enrollments reach levels determined by financial standing of the program.

Although the program is expected to grow organically, faculty within the Department of Engineering, School of Business and Department of Mathematics and Statistics will continue to engage in external grant funding opportunities to accelerate program growth and capital investments. The program has identified numerous external funding opportunities within the Maine Technology Institute, National Science Foundation, Department of Education, Department of Transportation, and the Department of Defense that invest in educational program development and industrial engineering related research.

In addition, The University of Maine System was awarded \$240 million from the Harold Alfond Foundation in 2020. A portion of the funding, estimated to be \$75 million, establishes a new system-wide College of Engineering, Computing and Information Science (MCECIS). The proposed Industrial Engineering program at USM was specified in the Foundation announcement. Although details are still forthcoming, the degree planning committee believes additional internal funding is available to help defray program costs in the coming years.

## 5 YEAR PRO FORMA STATEMENT

A conservative revenue and cost projection worksheet has been developed based upon program growth projections and resource allocations described within this proposal. We anticipate new enrollments of 8 full-time and 2 part-time students beginning in AY 23-24 and growing to steady-state new full-time equivalent (FTE) enrollment of 21 per year by AY 27-28. A flat 15% attrition rate on enrollment is assumed based on previous departmental retention. The total enrollments will peak to 53 in AY 27-28 and is expected to grow through 2030. These new enrollment projections are supported by experience within the Department of Engineering during the inception of the mechanical engineering in 2009. The first graduating class of six students is expected in AY 26-27, which also coordinates with the ABET accreditation cycle in AY 27-28.

Revenue projections use the conservative assumption that all incoming students are in-State tuition payers with a non-inflationary cost of \$288 per credit hour. No revenue projections are included for on-campus living expenses or associated program fees. Full-time equivalent students are expected to enroll for an

average of 15 credit hours in each semester and students matriculate on schedule through the program. Gross revenues from tuition equals \$77,760 in the program inception year and grows to \$457,920 in AY 27-28.

Expenses incurred include the recruitment (\$20,000 total), salaries and benefits of two new tenure-track faculty lines to support instruction and program growth. New faculty are anticipated to be hired at existing USM engineering faculty base rates and include a 3% COLA each year from AY 23-24. Faculty benefits are calculated using a flat 54.2% fringe rate based on salary. New faculty are anticipated to receive a start-up package of \$30,000 each in the first year of hire. No new staff are expected to be hired to support the program with the first 5 years, however, the program will make use of student assistants to help develop instructional tools and perform administrative support functions to meet program needs. A flat marketing expense of \$5,000 is budgeted each year of program operations to build website content, advertise to perspective students and attend engineering fairs across the State to recruit students and engage local businesses. Total expenses for program operations is expected to be \$34,000 in the inception year and grows to \$351,564 in year 5.

Net revenues are projected to be modest in the inception year at \$43,760, but grow to \$130,356 by year 5 of this analysis. The program is expected to remain net revenue positive throughout the 5 year period, despite the conservative revenue forecasting. The program in industrial engineering is expected to make a consistent positive impact on USM operations while meeting strategically important goals for the University of Maine System and the State of Maine. This result is directly attributed to the synergies that exist across the faculty, departments and colleges that are unique to USM.

**Table II:** Annual estimated enrollment and revenue projections for years 1-5 from program inception.

	<b>Academic Year</b>				
	<u>23-24</u>	<u>24-25</u>	<u>25-26</u>	<u>26-27</u>	<u>27-28</u>
Projected New Enrollment				25	25
In-State Full-time	8	8	12	15	18
In-State Part-time	2	3	4	5	6
Total Enrollment FTE	9	18	30	43	53
<b>Revenue</b>					
Estimated Tuition per credit hour	\$288	\$288	\$288	\$288	\$288
Credits per student per year	30	30	30	30	30
<i>Total Revenue</i>	<i>\$77,760</i>	<i>\$155,520</i>	<i>\$259,200</i>	<i>\$371,520</i>	<i>\$457,920</i>
<b>Expenses</b>					
New FTE Faculty	0	0	1	1	0
Total FTE Faculty	0	0	1	2	2
Total New Faculty Salary	0	0	\$80,861	\$166,574	\$171,571
Total New Faculty Benefits	0	0	\$43,827	\$90,283	\$92,991
Total New Staff Benefits	0	0	0	0	0
Total New Staff + Benefits	0	0	0	0	0
Total Materials (M&O, Cap)	\$25,000	\$30,000	\$40,000	\$40,000	\$50,000
New Faculty Recruitment	0	\$10,000	\$10,000	0	0
New Faculty Start-Up	0	\$0	\$40,000	\$40,000	
Marketing	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Student Assistants	\$4,000	\$6,000	\$8,000	\$8,000	\$8,000
<i>Total Expenses</i>	<i>\$34,000</i>	<i>\$51,000</i>	<i>\$227,690</i>	<i>\$349,860</i>	<i>\$327,564</i>
<b>Net Revenues</b>	<b>\$43,760</b>	<b>\$104,520</b>	<b>\$31,510</b>	<b>\$21,660</b>	<b>\$130,356</b>

## PROGRAM EVALUATION

The proposed Industrial Engineering program will be accredited by ABET, an international accreditation body specializing in engineering education. The USM Department of Engineering currently has two ABET accredited programs: electrical and computer engineering, and mechanical engineering, which have received high marks for continuous improvement and educational quality. ABET accreditation operates on a six year cycle, with new programs able to apply for evaluation as soon as there is a graduate in the program.

To meet ABET accreditation, the industrial engineering program will develop Program Evaluation Outcomes (PEOs) in coordination with engineering faculty, the engineering advisory board and current students. The program will be evaluated by ABET for meeting the PEOs as well as general ABET student outcomes criteria. The program will develop and maintain student outcome data annually via Student Program Assessment Data (SPAD) forms at the conclusion of each semester. SPAD form information will be aggregated and reviewed at the close of each academic year in a Student Outcome Review Process (SORP) to facilitate continuous improvement across the program. Regular meetings of the Engineering Advisory Board and Faculty use SORP data to review program educational objectives and ensure the program meets stakeholder (students and industry) needs.

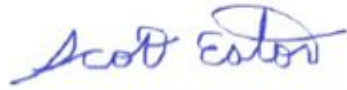
In addition, the Department of Engineering will work with the engineering advisory board to collect post-graduation placement data in accordance with program goals 1 and 2. Data will be collected through alumni surveys and employer surveys aimed at tracking placement rates, job advancement statistics, diversity of industrial sectors and organizational leadership responsibilities. Data will be recorded and maintained within the Department of Engineering and reported to the engineering advisory board on an annual basis. The engineering advisory board will assess the data for program effectiveness in meeting program objectives.

## OTHER RELEVANT INFORMATION

Advising will be conducted jointly by the University of Southern Maine's Advising Office and the Department of Engineering. Early enrollees in the Industrial Engineering program will be program advised by existing faculty within the Engineering Department. As new Industrial Engineering faculty hires join USM, students will be transferred to the requisite faculty.

## SIGNATURES

**Submitted by:**



Scott J. Eaton, PhD  
Assistant Professor of Mechanical Engineering  
University of Southern Maine

Sept. 6th, 2022

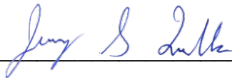
Date



Carlos Lück, PhD  
Chair, Engineering Department  
University of Southern Maine

7-September-2022

Date

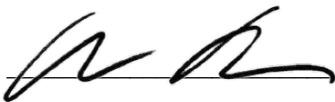


Jeremy Qualls, PhD  
Dean, College of Science, Technology and Health  
University of Southern Maine

Sept. 19th, 2022

Date

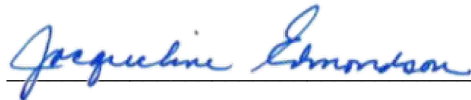
**Approved by:**



Adam Tuchinsky, PhD  
Interim Provost and Vice President for Academic Affairs  
University of Southern Maine

10/05/22

Date



Jacqueline Edmondson, PhD  
President  
University of Southern Maine

10/05/22

Date

## APPENDIX A – LETTERS OF SUPPORT

College of Engineering  
Office of the Dean



5796 AMC Building, Room 210  
Orono, Maine 04469-5796  
Tel: 207.581.2217  
Fax: 207.581.2220  
engineering.umaine.edu

August 17, 2022

Dr. Carlos Lück  
Chair, Department of Engineering  
University of Southern Maine  
149 John Mitchell Center  
67 Campus Avenue  
Gorham, ME 04038

RE: Proposed USM Undergraduate Major BS in Industrial Engineering

Dear Dr. Lück:

I am pleased to offer my support for the proposed University of Southern Maine Undergraduate Major BS in Industrial Engineering. Looking at nationwide enrollment data, this is the largest engineering degree that is not currently offered in Maine. It would complement other engineering degrees currently offered by the University of Maine and University of Southern Maine. There are companies with significant operations in Maine that seek engineering graduates in this specialty.

The proposal to offer this degree is in accordance with the recommendations of the report *Growing Engineering to Grow Maine's Economy* prepared for the University of Maine System Board of Trustees by the UMaine-USM Engineering Planning Team with assistance from 45 North Research LLC, dated February 2018. I was a member of this planning team and advocated that USM develop and offer a BS in Industrial Engineering.

Thank you for this opportunity to write this letter of support. Please let me know if I can provide any additional information.

Sincerely,

A handwritten signature in black ink that reads 'Dana N. Humphrey'.

Dana N. Humphrey, Ph.D., P.E.  
Dean of Engineering  
Saunders Professor of Engineering  
Leadership and Management

Cc: Provost John Volin





07/15/2022

Dr. Scott J. Eaton  
Department of Engineering  
Rm 222 John Mitchell Center  
University of Southern Maine, Gorham, ME 04038

**Re: Letter of Support and Collaboration for B.S. in Industrial Engineering**

Dear Dr. Eaton,

I am excited to participate in the development and delivery of the new degree program in Industrial Engineering at the University of Southern Maine. Industrial Engineering is an important engineering specialization with clear benefits to the State, the University and its graduates. Industrial Engineering has applications in almost all areas of business and industry, including those important to the greater Portland metroplex region such as manufacturing, healthcare and tourism. Future job prospects look very bright.

My specialization in operations research are foundational concepts in industrial engineering and are available to be leveraged in the degree program. As per our conversations, I am pleased to promote the inclusion of my courses in Operations Management (BUS 375) in the industrial engineering degree program. Further, I offer a course in Supply Chain Management (BUS 372) which would be a desirable technical elective to the students.

The timing of the new degree program proposal is ideal. Issues and concerns in operational resilience and supply chain management identified in the post pandemic economic emergence highlights the need for industrial engineers and systems thinking to strengthen our national infrastructure. The new degree program will support Maine's economic development and allow USM to participate in the post-pandemic national conversation.

Sincerely,

A handwritten signature in blue ink that reads 'Amarpreet'.

Amarpreet Kohli, PhD.,  
Associate Professor of Operations and Supply Chain Management  
School of Business, University of Southern Maine,  
Portland, ME 04104  
Tel: 207-780-4305, [amarpreet.kohli@maine.edu](mailto:amarpreet.kohli@maine.edu)



Department of Mathematics and Statistics

Dr. Scott J. Eaton  
Department of Engineering  
Rm 222 John Mitchell Center  
University of Southern Maine  
Gorham, ME 04038

**Re: Letter of Support and Collaboration for B.S. in Industrial Engineering**

Dear Dr. Eaton,

I am excited to participate in the development and delivery of the new degree program in Industrial Engineering at the University of Southern Maine. Industrial Engineering is an important engineering specialization with clear benefits to the State, the University and its graduates. Industrial Engineering has applications in almost all areas of business and industry, including those important to the greater Portland metroplex region such as manufacturing, healthcare and tourism. Future job prospects look very bright.

Industrial engineering overlaps with my specialization in operations research. Operations research concepts are foundational in industrial engineering and are available to be leveraged in the degree program. As per our conversations, I am pleased to promote the inclusion of my courses in deterministic modeling in operations research (MAT 366) and systems modeling and simulation (MAT 383) as required courses in the industrial engineering degree program. Further, I offer two additional courses in stochastic modeling in operations research (MAT 461) and queueing networks (STA 564) which would be desirable technical electives to the students.

The timing of the new degree program proposal is ideal considering the recent evolution of the Southern Maine economy. Issues and concerns in operational resilience and supply chain management identified in the post-pandemic economic emergence highlight the need for industrial engineers and systems thinking to strengthen our national infrastructure. The new degree program will support Maine's economic development and allow USM to participate in the post-pandemic national conversation.

Sincerely,

A handwritten signature in black ink, appearing to read "M. ElTaha", with a long, sweeping horizontal line extending to the right.

Muhammad El-Taha,

Professor

July 26, 2022

Dr. Scott J. Eaton  
Department of Engineering  
Rm 222 John Mitchell Center  
University of Southern Maine  
Gorham, ME 04038

Re: Letter of Support for B.S. in Industrial Engineering at USM

Dear Dr. Eaton,

Thank you for your efforts bringing together the proposed academic program in Industrial Engineering at the University of Southern Maine. Industrial engineering is an important, and currently lacking, skillset for Maine industries which can benefit broad sectors such as healthcare, transportation logistics, government and tourism. The envisioned program addresses the need for industrial engineers in the State and the timing of such a program is excellent given our economic emergence into a post-COVID world where supply chains and businesses are challenged as never before.

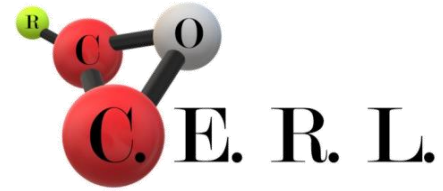
As president of the USM Engineering Advisory Board, I speak on behalf of all the members to congratulate you on your forward looking commitment to engineering education and supporting the needs of the State of Maine workforce. I have been witness to the planning and development of the new degree program in Industrial Engineering and strongly believe that the USM faculty, facilities and administration are well positioned to deliver an impactful degree program. The geographic location of the degree program, Portland/Gorham, is in the heart of Maine's industrial and economic engine and we expect significant collaborations to be forged between the department, your students and industry.

As the Engineering and Planning Department Training Manager, I know firsthand the critical need for engineers within the State of Maine. I see the immediate value of Industrial Engineering to our region. I am proud to offer this letter of support for the new academic program and I look forward to continuing our work with you to drive engineering education at USM to new heights.

Sincerely,

A handwritten signature in black ink, appearing to read 'Adam Henckler', with a stylized, flowing script.

Adam Henckler  
President – USM Engineering Advisory Board  
Engineering and Planning Department – Portsmouth Naval Shipyard



August 25, 2022

Dr. Scott J. Eaton  
Department of Engineering  
Rm 222 John Mitchell Center  
University of Southern Maine  
Gorham, ME 04038

Re: Letter of Support for B.S. in Industrial Engineering at USM

Dear Dr. Eaton,

I am pleased to offer this letter of support to your work to realize a Bachelor of Science degree in Industrial Engineering in the state of Maine. As director of the Composites Engineering Research Laboratory (CERL), I oversee a lot of industrial based materials and engineering problem solving research. One of the biggest impediments to our work is the initial conversations with our clients where we have to go through multiple meetings with them to understand the problem, because a lot of the times they see the problems but do not have a good understanding of manufacturing or processing issues that can solve these problems. Thus, we end up spending a lot of time helping our clients discover what they don't know, and a lot of this will be solved by industrial engineers with a strong background in engineering problem solving. Having worked with you over the past few years, I believe that the USM team is well positioned to deliver a successful program that will have positive impacts for the State of Maine.

CERL is a non-profit laboratory that was started ten years ago to support industry and provide education in the field of composite science, advanced materials, and engineering, and has continued to flourish under that mission at USM. The services that CERL currently offer includes applied engineering expertise for manufacturing, process development and optimization, advanced materials analytical services (including non-destructive testing techniques), focused educational training, and prototyping. CERL also manufactures and sells its custom mobile infusion technology system (MITS) for vacuum infusion process (VIP) manufacturing for composite laminate panels. The industries served by CERL include marine composites, construction and structural composites, wind and hydrokinetics composites, transportation composites, polymer resin development, thermoplastic and thermoset resin manufacturers and processors, electronic packaging and semiconductors, and other consumer composites.

I look forward to working and collaborating with you in applications of industrial engineering within the materials in manufacturing realm of Industrial Engineering.

Sincerely,

A handwritten signature in black ink, appearing to read "Asheesh Lanba".

Asheesh Lanba, Ph. D.  
Assistant Professor of Mechanical Engineering  
Director of Composites Engineering Research Laboratory (CERL)  
(207) 780-5582  
asheesh.lanba@maine.edu

Department of  
Mechanical Engineering



5711 Boardman Hall, Room 219  
Orono, Maine 04469-5711  
Tel: 207.581.2120  
Fax: 207.581.2379  
[umaine.edu/MechEng/](http://umaine.edu/MechEng/)

Date: July 26, 2022

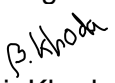
Dear USM faculty senate and Board of Trustee:

I am pleased to write my letter of support for your newly developed industrial engineering program at USM. This letter also confirms my willingness to provide ongoing advice to the program. Industrial engineering is important to the State's economy and post-pandemic resilience. IE trains graduates in the design, analysis, and control of production and service operations and systems. The graduates will work in various sectors, including manufacturing, distribution, transportation, mercantile, and service. Their skill-sets will help local businesses and governments to have access to a unique talent pool which will help improve the efficiency of their systems. I have worked with the USM team in the development of the proposal and will be engaged going forward.

My name is Bashir Khoda, and I am an associate Professor in the Mechanical Engineering department and the Graduate Concentration Coordinator of Smart Manufacturing at the University of Maine, Orono campus. Additionally, I served as an affiliated faculty member in the Interdisciplinary Materials Science and Engineering program, Bio-medical Science and Engineering (BMSE) program, and Advanced Structures and Composites Center (ASCC). Prior to joining UMaine, I served as a tenure track assistant professor in the Industrial and Manufacturing Engineering department at the North Dakota State University. I received my Ph.D. in Industrial and Systems Engineering from the University at Buffalo (SUNY) in Buffalo, New York. I also earned my M.Sc. and B.Sc. degrees in Industrial and Production Engineering (IPE) from the Bangladesh University of Engineering and Technology (BUET), Bangladesh. I am a member of the Institute of Industrial Engineering (IIE); the American Society of Mechanical Engineers (ASME); Society for Manufacturing Engineers (SME). Based on my background, I feel comfortable and well suited to support the effort at USM for the industrial engineering program.

My best wishes to this new program and all involved with its development. If you have any questions, please do not hesitate to contact me.

Best Regards-

  
Bashir Khoda, Ph.D.  
Associate Professor  
Department of Mechanical Engineering, The University of Maine  
Room 208, 5711 Boardman Hall  
Orono, ME 04469-5711  
Phone: 207-581-5183 (O); Fax: (207) 581-2379  
<https://faculty.umaine.edu/bashirkhoda/>

July 21, 2022

Scott J. Eaton, PhD  
Assistant Professor of Mechanical Engineering  
222 John Mitchell Center  
Department of Engineering  
University of Southern Maine

Dear Scott,

I'm providing this letter of support for the proposed Industrial Engineering program at USM on behalf of L.L.Bean. The program goals of training graduates to solve complex problems within existing and emerging industries in Maine are relevant and important to many aspects of L.L.Bean's business.

The Industrial Engineering role in our Order Fulfillment Center (OFC) is a critical role. We leverage the skillset of Industrial Engineers to oversee warehousing processes. The engineering staff at the OFC is responsible for all standard operating procedures - working closely with building operators to ensure all processes are safe, ergonomically correct, and accurate. They establish all labor standards and are responsible for the material handling equipment from fork trucks to conveyor belts and sortation systems. In our Manufacturing facility, Industrial Engineers are also responsible for establishing manufacturing costs.

As automation and other new technologies emerge and expand, we anticipate ongoing need for Industrial Engineers who can design processes, solve complex challenges, and operate effectively in a collaborative and multidisciplinary context.

L.L.Bean has a robust internship program, hosting upwards of 50 interns each summer across all areas of the business. There are a variety of intern opportunities that would be suitable for Industrial Engineering students that would give them meaningful experience and build their skills in a corporate context. With other institutions we have created customized educational partnerships, such as co-ops and experiential learning projects. We would welcome the opportunity to partner with the Industrial Engineering program to provide opportunities for your students to gain direct experience and to address real business problems.

The Industrial Engineering program at USM would also create a much-needed talent pipeline for L.L.Bean. We have found it challenging to fill available Engineering positions. A recent job posting for an open IE position had no applicants from Maine and only one applicant from New England. An Industrial Engineering program located at USM would be of great benefit to us and building a partnership with this program would strengthen our ability to fill these critical roles.

If I can provide additional information or answer any questions, please don't hesitate to contact me.

Sincerely,

*Maureen Lafferty*

Maureen Lafferty  
Vice President - Talent, Development and HR Business Teams  
L.L.Bean Inc  
[mlafferty@llbean.com](mailto:mlafferty@llbean.com)



# ***Manufacturers Association of Maine***

July 12, 2022

Dr. Scott J. Eaton  
Department of Engineering  
Rm 222 John Mitchell Center  
University of Southern Maine  
Gorham, ME 04038

Re: Letter of Support for B.S. in Industrial Engineering at USM

Dear Dr. Eaton,

I am pleased to be a partner with the University of Southern Maine engineering team and supporting your efforts to bring a Bachelor of Science degree in Industrial Engineering to Maine. Industrial engineers are a critical needed within Maine's manufacturing community. I believe that the USM team is well positioned to deliver a successful program given their strong track record in engineering education and geographic position within the Portland metroplex.

The Manufacturers Association of Maine (MAME) is a 501(c) 6 and a 501 (c) 3 non-profit organization comprised of over 400 member companies in the State of Maine and surrounding Northern New England areas representing nearly 29,000 people in Maine's workforce. Industrial and systems engineers are one of the most requested engineering specializations within our community. A recent search for open positions in the industrial and systems engineering in Maine yielded 94 advertisements. Employers in Maine routinely recruit these engineers from the Southern New England/New York south regions which has only become increasingly difficult given the post-pandemic environment.

We believe a new degree program in Industrial Engineering at the University of Southern Maine addresses an immediate short-term need with the State and positions the State and local businesses for long-term success. MAME is looking forward to working and collaborating with the USM team in the areas of internship placements and business outreach.

Sincerely,

Lisa G. Martin, Executive Director

---

33 Mcalister Farm Road  
Portland, ME 04103  
207-747-4406  
[info@mainemfg.com](mailto:info@mainemfg.com)  
[www.mainemfg.com](http://www.mainemfg.com)

*"The Manufacturers Association of Maine is dedicated to promoting and growing manufacturing."  
We are Maine's Pro-Growth, Pro-Manufacturing organization*



# MaineHealth

August 26, 2022

Dr. Scott J. Eaton  
Department of Engineering  
Rm 222 John Mitchell Center  
University of Southern Maine  
Gorham, ME 04038

Re: Letter of Support for B.S. in Industrial Engineering at USM

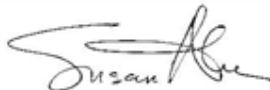
Dear Dr. Eaton,

It is my pleasure to offer this letter of support to the University of Southern Maine engineering team for your efforts to bring a Bachelor of Science degree in Industrial Engineering to Maine. Industrial engineers are a critical need within the healthcare industry. As the head of MaineHealth's Innovation Center, I can attest to the value of industrial engineers to numerous aspects of the healthcare system. In particular, our vitally important efforts to optimize efficiency, eliminate waste, and improve productivity within clinical settings. I believe that the USM team is well positioned to deliver a successful program that has the potential to be a key partner for healthcare throughout the state.

MaineHealth is a not-for-profit integrated health system operating 17 service centers and more than 200 specialty and primary care practices across Maine and New Hampshire. We employ over 22,000 employees, with 1,700 service providers and physicians. We believe in working together to make our communities the healthiest in America.

We believe a new degree program in Industrial Engineering at the University of Southern Maine addresses an immediate short-term need in Maine and positions local businesses for long-term success. I am looking forward to working and collaborating with the USM team in applications of industrial engineering within the healthcare systems of Maine.

Sincerely,

A handwritten signature in black ink, appearing to read "Susan Ahern". The signature is fluid and cursive, with a large initial "S" and "A".

Susan Ahern  
Vice President of Innovation  
MaineHealth

## APPENDIX B – REVIEWED IE PROGRAMS LISTING

### Undergraduate Programs in Industrial and/or Systems Engineering Reviewed

New Jersey Institute Technology, Mechanical and Industrial Engineering: <https://mie.njit.edu/>

Indiana Technical University, Industrial & Manufacturing Engineering:  
<https://academics.indianatech.edu/programs/ime/>

Morgan State University, Industrial & Systems Engineering: <https://www.morgan.edu/soe/ise>

Western Michigan University, Industrial & Manufacturing Engineering: <https://www.morgan.edu/soe/ise>

University of New Haven, Industrial & Systems Engineering:  
<https://www.newhaven.edu/engineering/undergraduate-programs/industrial-systems-engineering/>

Western New England University, Industrial Engineering:  
<https://www1.wne.edu/academics/undergraduate/industrial-engineering.cfm>

University of Minnesota, Industrial & Systems Engineering: <https://cse.umn.edu/isyse>

Wright State University, Industrial & Systems Engineering: <https://www.wright.edu/degrees-and-programs/profile/industrial-systems-engineering>

Auburn University, Industrial & Systems Engineering: <https://www.eng.auburn.edu/insy/>

North Dakota State University, Industrial & Manufacturing Engineering: <https://www.ndsu.edu/ime/>

Georgia Technical University, Industrial Engineering: <https://www.isye.gatech.edu/>

California State Polytechnic University – San Luis Obispo, Industrial Engineering:  
<http://www.ime.calpoly.edu/>

University of Ohio, Industrial and Systems Engineering: <https://www.ohio.edu/engineering/ise>

University of Massachusetts – Lowell, Industrial Engineering:  
<https://www.uml.edu/Engineering/Mechanical/Programs-of-Study/Undergraduate/industrial-engineering-major.aspx>

## APPENDIX C – USM ENGINEERING CURRICULUM MAP



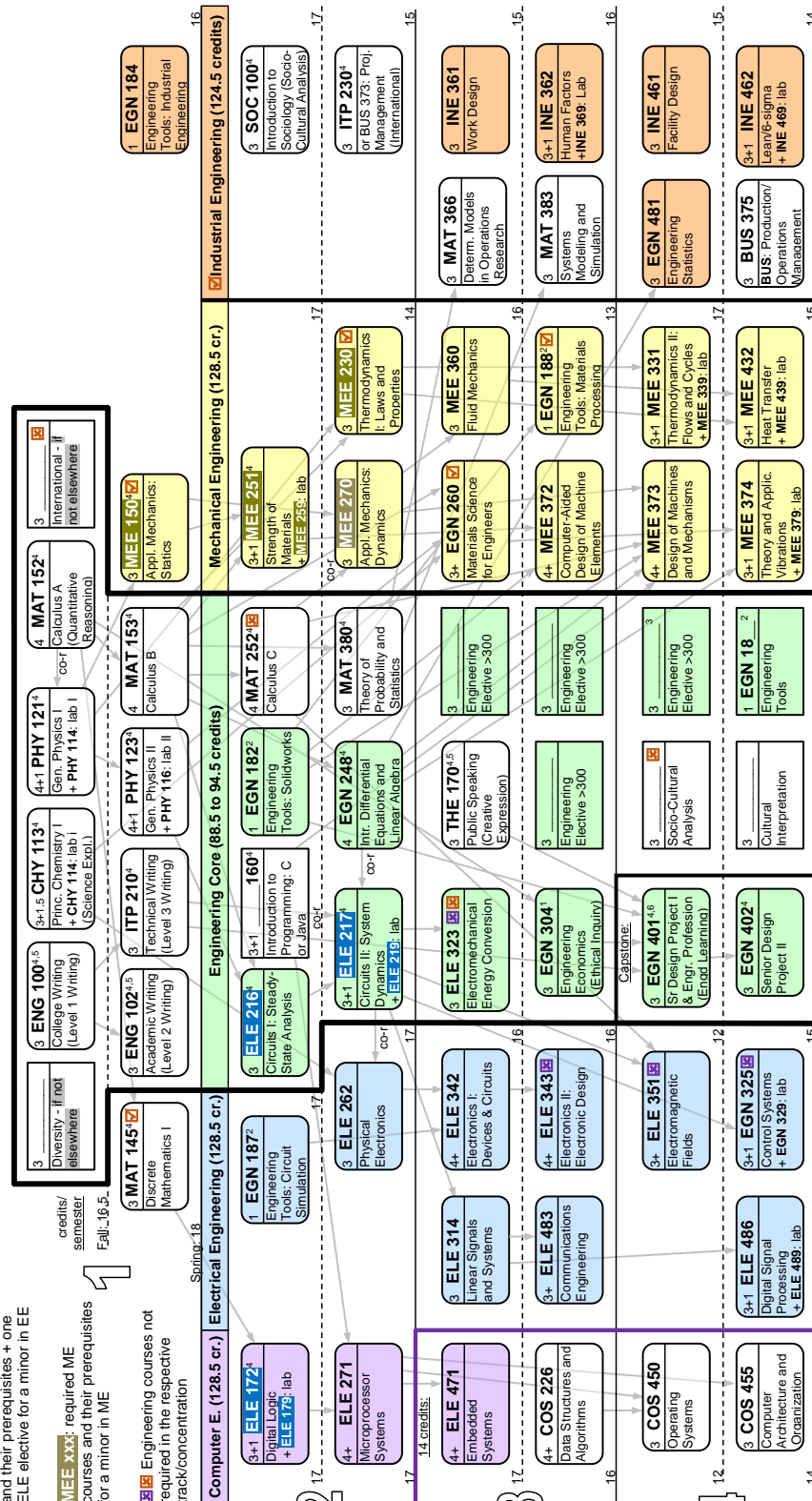
Department of Engineering  
**ELE xxx:** required EE courses  
 and their prerequisites + one  
 ELE elective for a minor in EE

**MEE xxx:** required ME  
 courses and their prerequisites  
 for a minor in ME

**ENG xxx:** Engineering courses not  
 required in the respective  
 track/concentration

## Unified Engineering Curricula 2023/2024 – draft 7/10/2022

Programs: EE-BS, COMP-EGN, ELEC-EGN, EE-MIN, MEE-BS, INDU-EGN, MEE-MIN, NGR-PR



+ Course containing an integral laboratory component (+1: co-registration with a 1-credit lab course). Lab pre-reqs are in the Catalog.

1 Requires completion of 3 among *Science Explorations*, *Socio-Cultural Analysis*, *Cultural Interpretation*, and *Creative Expression*.

2 Three Engineering Tools required: all majors require EGN 182, ECE majors require EGN 187, ME majors require EGN 188.

3 IE Concentration majors require EGN 482 or EGN 484 to satisfy one of its technical electives.

4 May be offered more than once/year, based on demand.

5 May be substituted by the HON equivalent from the Honors Program.

6 Requires advisor permission, with the expectation of graduation in 2 semesters.

7 May be satisfied in conjunction with another requirement (aka double-dipping)

## APPENDIX D – APPROVAL LETTER FROM UMS FOR USM I.E. PROGRAM DEVELOPMENT



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

**Tel: 207-973-3211  
Fax: 207-581-9212  
[www.maine.edu](http://www.maine.edu)**

Date: February 4, 2022

To: Dr. Glenn Cummings, President  
University of Southern Maine

From: Robert Placido, VCAA *RAP*  
The University of Maine System (UMS)

Cc: Dr. Jeannine Diddle Uzzi, Provost

Subject: Intent to Plan - USM New Undergraduate Major BS in Industrial Engineering

---

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

The Chief Academic Officers Council (CAOC) reviewed the Intent to Plan submitted by the University of Southern Maine for a new BS in Industrial Engineering on January 20, 2022. The CAOC was supportive. The VCAA supports and approves this intent to plan.

Please do not hesitate to let me know if you have any questions.

## APPENDIX E – CURRICULUM VITAE

**Scott J. Eaton, Ph.D.**

Assistant Professor of Mechanical Engineering  
University of Southern Maine

John Mitchell Center  
Gorham, ME 04038

(207)664-4847(c)  
scott.eaton@maine.edu

**Professional Preparation**

University of Maine – Orono      Chemical Engineering      Ph.D.      2015

**Dissertation Title:** *“Thermal Deoxygenation of Biomass Hydrolyzate Salts for the Production of Transportation Fuels”*

University of Tennessee - Knoxville      Mechanical Engineering      M.S.      2006

**Thesis Title:** *“Accelerated Poisoning of Diesel Oxidation Catalysts by Zinc Dialkylthiophosphate Derived Phosphorus”*

University of Maine - Orono      Mechanical Engineering      B.S.      2004

*Magna Cum Laude w/Mathematics Minor*

**Appointments**

2020 – present      Asst. Professor of Mechanical Engineering, University of Southern Maine

2018 – 2020      Laboratory Director, ProVerde Laboratories, Portland, ME

2017 – present      Chief Technology Officer, Foothill Fuels Inc., Portland, ME

2017 – 2018      Asst. Research Prof. in Chemical Engineering, University of Maine - Orono

2016 – 2017      Adjunct Professor of Chemical Engineering, University of Maine - Orono

2015 – 2017      Assistant Research Professor of Engineering, Maine Maritime Academy

2009 – present      Chief Technology Officer, SeaChange Group, LLC, Brunswick, ME

2010 – 2015      Graduate Research Assistant, University of Maine - Orono

2009 – 2010      Laboratory Engineer, Maine Maritime Academy

2006 – 2009      Post-master’s Research Associate, Oak Ridge National Laboratory

2006 – 2009      Adjunct Research Assoc. University of Tennessee - Knoxville

2004 – 2006      Graduate Research Assistant, University of Tennessee - Knoxville

2004      Engineering Intern, Naval Undersea Warfare Center, Newport, RI

2001 – 2004      Engineering Assistant, University of Maine – Orono



### **Academic and Research – Honors and Awards**

- Inducted: Francis Crowe Society – 2015
- DOT University Transportation Center “Student of the Year” Award – 2014
- Inducted: Pi Tau Sigma - Mechanical Engineering Honor Society – 2003
- Inducted: Sigma Pi Sigma – Physics Honor Society – 2002
- Inducted: Pi Mu Epsilon – Mathematics Honor Society – 2002
- University of Maine Presidential Achievement Award – 2001

### **Service**

- USM Industrial Engineering Program Planning Committee (2021-2022)
- USM Mathematics Preparation Work Group Member (2021)
- USM Hiring Event planning committee (2021)
- USM Cubesat Development Workshop Organizer (2020 – present)
- USM Cubesat Design Competition (UCDC) Middle and High School mentor (12 teams) (2020 – present)
- USM Cubesat Design Competition (UCDC 21) Organizer (2020 – present)
- ASTM International – Affiliate Member, D37 standards committee (2018 – present)
- Consortium for Mathematics and Its Applications (COMAP) Interdisciplinary Contest in Modeling (ICM) – Technical Paper Judge (2017 – present)
- SEPA Data Literacy Teacher Mentor – MDI Biological Laboratory (2018 - 2019)
- Scientific Content Reviewer – Transportation Research Board (2017 – present)
- Scientific Content Reviewer – Elsevier Journals (2017 - present)
- Marine Systems Engineering Co-op coordinator – MMA (2017)
- Engineering Department Faculty Search Committee – MMA (2017)
- Outcomes Assessment Committee - MMA (2017)
- Engineering Department Planning Committee - MMA (2016-2017)
- Environmental Sustainability Minor Development Team – MMA (2015-2017)
- Thermal/Fluids Laboratory Coordinator - MMA (2015–2017)
- Webmaster – Marine Engine Testing and Emissions Laboratory (2015–2017)
- Assistant to the Director, Marine Engine Testing and Emissions Lab (2015–2017)
- Math/Physics Tutor - (2015)
- Technical Advisor – Clean Combustion Technologies, Rumford, ME (2010-2011)

Scott J. Eaton, PhD

Page 3 of 12

- Scientific Content Reviewer – Society of Automotive Engineers (2008-2010)

### **Associations/Memberships/Professional Affiliations**

- Technology Advisor Board – eHempHouse, Binghamton, NY (2021-present)
- Vice Chair – American Society of Mechanical Engineers, Northern New England Section (2021-present)
- External Associate - Forest Bioproducts Research Institute, Orono, ME (2020–present)
- Affiliate - Marine Engine Testing and Emissions Laboratory, Castine, ME (2018–present)
- ASTM International – Affiliate Member (2018 – present)
- TRB Standing Committee on Marine Environment – AW030, Member (2017 – 2020)
- Technical Advisory Board – SeaChange Group LLC, Brunswick, ME (2017 – present)
- Transportation Research Board, Affiliate (2016 – 2020)
- American Institute of Chemical Engineers, Member (2013 - present)
- American Chemical Society, Member (2013 – present)
- Society of Automotive Engineers, Member (2006 – present)
- American Society of Mechanical Engineers (2004 – present)

### **Workshops Attended**

- Summer Antiracism Institute, University of Southern Maine, June 2021.
- American Society of Mechanical Engineers Group Leadership Development Conference (ASME GLDC), virtual, May 2021
- Grants Academy, University of Maine System, October 2020 – May 2021
- CTCL Brightspace Training, University of Southern Maine, July 2020

### **Research Funding History**

#### **Engineering Research Grants**

- ❖ **University of Maine Reinvestment Fund (\$15,000)**  
*Track 1: Advanced hybrid nanocatalysts for carbon dioxide hydrogenation to ethylene.*  
Senior Personnel 2021-2022
- ❖ **American Society of Brewing Chemists (\$7,000)**  
*Development of a chemiluminescent detection apparatus for dimethyl sulfide in beer process streams.* Senior Personnel 2020-2021
- ❖ **Maine Space Grant Consortium (\$15,637)**  
*Cubesat Development and K-12 Outreach at USM.* PI 2020-2024
- ❖ **University of Maine Reinvestment Fund (\$100,000)**

*Microalgae Culture Coupled Catalysis: Producing Marine Diesel Fuel Additives from Algal Biomass.* co-PI 2017.

- ❖ **Northeast Regional Sun Grant, DOE Sungrant Initiative (\$150,000)**  
*Biobased Lubricants and Fuels: Integration of Chemical Catalysis with Mixed Culture Fermentation.* co-PI 2017.
- ❖ **Defense Logistics Agency (\$2.3 Million)**  
*Woody Biomass Conversion to Liquid Hydrocarbon Fuels* Subaward PI (\$115,337) Contract #SP4701-16-C-0037, 2016.
- ❖ **National Science Foundation MRI (\$381,585)**  
*MRI: Acquisition of a Gas Chromatography Triple Quadrupole Mass Spectrometer for Research and Teaching at Maine Maritime Academy.* Principal Investigator Award #OIA-1625712, 2016.
- ❖ **Department of Transportation University Transportation Centers (\$3.2 Million)**  
*Marine Engine Testing and Emissions Laboratory.* Investigator Tier I Award #DTRT13-G-UTC43, 2015. I served as Assistant Director to help manage center staff and maintain external collaborations as well as lead fuel and emissions research programs.
- ❖ **Department of Energy STTR (\$150,000)**  
*A Thermal Deoxygenation Process for Cellulosic Biomass Conversion to Energy-Dense Biofuels.* co-PI Award #DE-SC0008250, 2012.
- ❖ **Maine Technology Institute (\$17,465)**  
*High-Speed Diesel Engine Test Platform.* Principal Investigator Award #SG5094, 2012.
- ❖ **Maine Technology Institute (\$24,654)**  
*Prototype Eco-Hybrid Fuel Processor.* Principal Investigator Award #SG5095, 2012.
- ❖ **National Science Foundation SBIR (\$150,000)**  
*Development of Glycerin/Biodiesel Blended Marine Fuels.* Principal Investigator Award #IIP-1046784, 2011.
- ❖ **National Science Foundation SBIR (\$30,000)**  
*Development of Glycerin/Biodiesel Blended Marine Fuels.* Principal Investigator Award #IIP-1046784 ext., 2011.
- ❖ **Maine Technology Institute (\$4,985)**  
*Development of Glycerin Emulsions for Diesel Marine Fuels* Principal Investigator Award #PZ143, 2011.
- ❖ **Maine Technology Institute (\$10,000)**  
*Development of Bio Product Blended Marine Fuels.* Principal Investigator Award #PP014, 2011.

#### Technology Development Grants

- **Maine Technology Institute (\$8,710)**  
*Renewable Camping Fuel Phase II.* Principal Investigator Award #SG5614, 2017.
- **Maine Technology Institute (\$24,481)**

*Development of Enzymatic Biodiesel Manufacturing Technologies for Sustainable Heat and Power Generation.* Principal Investigator Award #SG5573, 2016.

- **Maine Technology Institute (\$23,969)**  
*Renewable Camping Fuel Phase I.* Principal Investigator Award #SG5531, 2016.
- **Maine Technology Institute Development Loan (\$250,000)**  
*EHF Refinement & Early Adopter Testing.* Principal Investigator Award #DL4004, 2014.
- **Maine Technology Institute Development Loan (\$244,881)**  
*Product Validation Testing of Low Emission Fuels.* Principal Investigator Award #DL3304, 2013.
- **New England Clean Energy Council (\$30,000)**  
*Development and Marketing of Green Marine Fuel.* Principal Investigator CINE Award, 2013.
- **Maine Technology Institute (\$4,975)**  
*Intellectual Property Filing for Low-Emissions Fuel Mixtures.* Principal Investigator Award #TS0085, 2012.
- **Maine Technology Institute (\$7,510)**  
*Market Research for Green Marine Fuels.* Investigator Award #SG4659, 2011.

## **Inventions**

- 1) A. Dusseault and S.J. Eaton, University of Southern Maine, Variable Volume Pressurized Fuel Container. Application Submitted **2021**.
- 2) S.J. Eaton and G.N. Harakas, SeaChange Group LLC, Glycerol Containing Fuel Mixture for Direct Injection Engines. Canadian Patent # CA2837269A1, May 22<sup>nd</sup>, **2018**.
- 3) G.N. Harakas, S.J. Eaton, R.W. Kimball, B.G. Braley and R.C. Ring, SeaChange Group LLC, Biodiesel Glycerol Emulsion Fuel Mixtures. U.S. Patent #9,976,096 B2 May 22<sup>nd</sup>, **2018**
- 4) S.J. Eaton and G.N. Harakas, SeaChange Group LLC, Glycerol Containing Fuel Mixture for Direct Injection Engines. European Patent Office #EP2714860A2, Dec. 7<sup>th</sup>, **2016**.
- 5) S.J. Eaton and G.N. Harakas, SeaChange Group LLC, Glycerol Containing Fuel Mixture for Direct Injection Engines. U.S. Patent #9,410,102 B2, Aug. 9<sup>th</sup>, **2016**.
- 6) G.N. Harakas, S.J. Eaton, R.W. Kimball, B.G. Braley and R.C. Ring, SeaChange Group LLC, Biodiesel Glycerol Emulsion Fuel Mixtures. U.S. Patent #9,303,228 April 5<sup>th</sup>, **2016**

- 7) S.J. Eaton and G.N. Harakas, SeaChange Group LLC, Glycerol Containing Fuel Mixture for Direct Injection Engines. U.S. Patent #8,679,202 B2, Mar. 25<sup>th</sup>, 2014

## **Teaching Experience**

### **University of Southern Maine**

EGN 301 Junior Design Project and the Engineering Profession: A first course in the engineering design process. Project management basics and the importance of team work. Junior level engineers develop team-based design to real engineering applications.

EGN 498 Introduction to Combustion Science: This introductory course introduces basic concepts of thermochemistry, mass diffusion and chemical kinetics to explain combustion and flame phenomena. Applications include burners and internal combustion engines.

EGN 498 Spacecraft System Engineering: An introduction to mission planning and space engineering. This course develops the role of the systems engineer in the planning and successful execution of space missions. Topics include orbital mechanics, positioning, attitude control, thermal engineering, power management and critical failure analysis. Impacts of space engineering on society are discussed.

MEE 331 Thermodynamics II: Flows and Cycles: Junior/Senior level course for mechanical engineering students utilizing the 1<sup>st</sup> and 2<sup>nd</sup> Laws of thermodynamics to analysis conceptual and real thermodynamic systems for heat, work and efficiency.

MEE 339 Thermodynamics Laboratory: A compendium laboratory course to MEE 331 providing students a hands-on affirmation of thermodynamics concepts as they apply to power generation, refrigeration systems and alternative energy cycles.

MEE 432 Heat Transfer: A systematic treatment of heat transfer conduction, convection and radiation. Fundamental laws are presented and governing heat equations are developed to develop analytical solutions to solve common engineering problems.

MEE 439 Fluid Mechanics & Heat Transfer Laboratory: Exploration of theory and applications of fluid mechanics and heat transfer in the laboratory.

### **Maine Maritime Academy**

Et-351 Thermal/Fluids Lab: Senior level engineering technology lab covering uncertainty of measurements analysis, gas turbines cycle analysis, heat pumps, impulse turbines, alternative engineering, solar collectors and water heaters and fuel cells

ES-510 Engineering Test Lab: 4<sup>th</sup> and 5<sup>th</sup> year undergraduate systems engineering laboratory course covering topics in thermodynamics, gas and internal combustion cycle analysis, materials, electronics, vibrations, and uncertainty of measurements analysis

Et-362L Material Properties Lab: Senior level laboratory course for engineering technology students that is an addendum to lecture course and covers the common test procedures including 3-pt bend tests, tensile tests Charpy tests, hardness tests, heat treatments and materials properties

Et-371L Electrical Power I Lab: Introductory laboratory course to marine systems and technology students covering basic electronic circuit construction, testing equipment, AC and DC motor operation and control techniques

Et-201L Fluid Power Lab: Introductory laboratory course for marine systems and technology students and covers the applications of basic fluid mechanics including hydraulics, Bernoulli equation, moody charts, piping systems and pumps

## University of Maine

CHE-461: Combustion and Fuel Processing: Co-lead 4<sup>th</sup> year undergraduate or 1<sup>st</sup> year graduate student course covering the fundamental aspects of solid, liquid and gaseous fuel chemistry and combustion. Fuel processing technologies and unit operations are introduced and combustion systems analysis is used to set system design criteria for optimal performance.

## Publications

### Peer Reviewed – Submitted or Published

1. **S.J. Eaton**, A. Lanba, J. Qualls, D. Fransiscus, T. Werner, H. Kguyen and C. Bailey. "CubeSat Design Competition to Foster K-12 STEM Participation in Maine". *Proceedings of the ASEE 2022 Annual Conference* **2022** Paper #36862
2. **S.J. Eaton**, S.A. Karunaratne, M. Kline, S. Payne, H.P. Pendse and M.C. Wheeler. "Combustion Dynamics of Crude and Upgraded Thermal Deoxygenation Oils in a Compression Ignition Engine". *Fuel*. **2022** 324(B), 124700.
3. **S.J. Eaton** and M.C. Wheeler. "Intensification of Biomass Thermal Deoxygenation via a Two-Stage Process". *Ind. & Chem. Eng. Res.* **2021** 60(3), 1194-1199.
4. J. Wakshlag, **S.J. Eaton**, R. Prussin and C. Hudalla. "Cannabinoid, terpene, and heavy metal analysis of 29 over the counter commercial veterinary hemp supplements". *J. Veterinary Medicine: Research and Reports* **2020** 15(11), 45-55.
5. **S.J. Eaton**, T.T. Wallace, B.G. Sarnacki, T. Lokocz-Adams, R.W. Kimball, J.A. Henry and G.N. Harakas. "Combustion and Emissions of Glycerol Emulsion Fuel in a Medium-Speed Diesel Engine". *J. Marine Eng. Tech.* **2018** 18(2), 102-111.
6. **S.J. Eaton** and M.C. Wheeler. "Reactions and Kinetics of Alkaline-Earth Metal Levulinate and Formate Salt Decomposition". *Sustain. Chem. Eng.* **2017** 5(4), 3039-3045

7. R.W. Kimball, B.G. Sarnacki, **S.J. Eaton**, J.A. Henry, T. Wallace and T. Lokocz. "Diesel Engine Emissions/Performance of Emulsion Marine Fuels". *Proceedings of the 17<sup>th</sup> Annual General Assembly of the International Association of Maritime Universities (IAMU AGA 17)* **2016**.
8. **S.J. Eaton**, S.H. Beis, S.A. Karunarathne, H.P. Pendse, M.C. Wheeler. "Hydrotreatment of Thermal Deoxygenation Oils Derived from Bio-Renewable Feedstock". *Energy & Fuels* **2015**, 29(5), 3224-3232.
9. **S.J. Eaton**, G.N. Harakas, R.W. Kimball, J.A. Smith, K.A. Pilot, M.T. Kuflik and J.M. Bullard. "Formulation and Combustion of Glycerol-Diesel Fuel Emulsions". *Energy & Fuels* **2014**, 28(6), 3940-3947.
10. **S.J. Eaton**, S.H. Beis, B.G. Bunting, S.W. Fitzpatrick, G.P. van Walsum, H. Pendse, M.C. Wheeler. "Characterization and Combustion of Crude Thermal Deoxygenation Oils Derived from Hydrolyzed Woody Biomass". *Energy & Fuels* **2013**, 27(9), 5246-5252
11. **S.J. Eaton**, B.G. Bunting, S.A. Lewis & C. Fairbridge. "Effect of Narrow Cut Oil Shale Derived Distillates on HCCI Engine Performance." *SAE Paper# 2009-01-2646*
12. B.G. Bunting, **S.J. Eaton** & R. Crawford. "Performance Evaluation and Optimization of Diesel Fuel properties and Chemistry in an HCCI Engine." *SAE Paper# 2009-01-2645*
13. **S.J. Eaton**, B.G. Bunting, T.J. Toops & K. Nguyen. "Effect of Soot Accumulation on Light-off Performance of Field-Aged and Accelerated Phosphorus Poisoning Diesel Oxidation Catalysts." *Proceedings of the 20<sup>th</sup> North American Catalysis Society Meeting (NAM)*, Houston, TX **2009**
14. **S.J. Eaton**, K. Nguyen, T.J. Toops & B.G. Bunting. "The Roles of Phosphorus and Soot on the Deactivation of Diesel Oxidation Catalysts." *SAE Paper# 2009-01-0628*
15. J.A. Massey, J.A. Drallmeier, **S.J. Eaton** and R.M. Wagner. "Influence of the Combustion Energy Release on Surface Accelerations of an HCCI Engine". *SAE Paper# 2009-01-2741*
16. B.G. Bunting, **S.J. Eaton**, R. Crawford, L. Wolf, S. Kumar, D. Stanton & H. Fang. "Performance of Biodiesel Blends of Different FAME Distributions in HCCI Combustion." *SAE Paper# 2009-01-1342*
17. J. Massey, J. Drallmeier, **S.J. Eaton** & R. Wagner: "Contribution of Combustion Energy Release to Surface Accelerations of an HCCI Engine." *Proceedings of 6<sup>th</sup> U. S. National Combustion Meeting*, Ann Arbor, MI **2009**
18. B.G. Bunting, **S.J. Eaton**, K. Puduppakkam, C. Naik, C.P. Chou & E. Meeks. "A Comparison of HCCI Ignition Characteristics of Gasoline Fuels Using a Single-Zone Kinetic Model with a Five Component Surrogate Fuel." *SAE Paper# 2008-01-2399*
19. B.G. Bunting, **S.J. Eaton**, J. Storey, C. Fairbridge, K. Mitchell, R.W. Crawford, T. Gallant, J. Franz & M. Alnajjar. "The Chemistry, Properties and HCCI Combustion Behavior of Refinery Streams Derived from Canadian Oil Sands Crude." *SAE Paper# 2008-01-2406*
20. **S.J. Eaton**, K. Nguyen, B.G. Bunting & T.J. Toops. "Deactivation of Diesel Oxidation Catalysts by Oil-Derived Phosphorus." *SAE Paper# 2006-01-3422*

21. B.G. Bunting, J.P. Szybist, T.J. Toops, K. Nguyen, **S.J. Eaton**, A. Youngquist & A. Gopinath. "The Use of Small Engines as Surrogates for Research in Aftertreatment, Combustion and Fuels." *SAE paper# 2006-32-0035*

### **Publications in Progress**

- S.J. Eaton, B.G. Sarnacki, J.A. Henry, T.T. Wallace, T. Lokocz Adams, R.W. Kimball. "Exhaust Chemistry and Particulate Morphology of Glycerol-Diesel Emulsions in a High-Speed Indirect Injection Engine" *Fuel* **2022** In Progress
- B.G. Sarnacki, J.A. Henry, S.J. Eaton. "TEM Image Thickness Contrast for Determination of Soot Particle Characteristics" *Combustion and Flame* **2022** In Progress.

### **Other Publications**

- **Feature Article:** Transportation Research News. "Marine Transportation and the Environment: Trends and Issues" January – February **2018**
- **Fuel Technologies Annual Progress Report:** "Non-Petroleum Fuel Effects in Advanced Combustion Regimes". DOE/EE-0724 **2009**

### **Invited Talks**

- ❖ "Cubesats for Education" **Create and Learn** (Online) April, **2022**
- ❖ "Marine Engine Testing and Emissions Laboratory" **Oak Ridge National Laboratory – Fuels, Engines and Emissions Research Center**. Oak Ridge, TN August, **2015**.

### **Panel Discussions and Workshops**

- "Springs!" **Girl Scouts of Maine**, Portland, ME March **2022**
- "Ask an Engineer" **Portland High School**, Portland, ME October **2021**.

### **Conference Presentations**

1. S. Karunarathne, M. Kline, **S.J. Eaton**, H.P. Pendse and M.C. Wheeler. "Synthesis of Renewable Jet Fuel Range Cycloparaffins with Levulinic and Formic Acids" American Institute of Chemical Engineers (AIChE) Annual Meeting, Boston **2021**.
2. L. Benedict and **S.J. Eaton**. "Development of a Simple and Portable Chemiluminescence Device for the Quantitation of DMS in Beer and Wart" American Society of Brewing Chemists (ASBC) Annual Meeting (virtual), **2021**.
3. **S.J. Eaton**, S. Karunarathne, S. Payne, H.P. Pendse and M.C. Wheeler. "Heat Release Analysis of Neat and Upgraded Biorenewable Thermal Deoxygenation Oils in a Diesel



- Engine” American Institute of Chemical Engineers (AIChE) Spring Meeting (virtual), **2021**.
4. S. Karunarathne, M. Klein, **S.J. Eaton**, H.P. Pendse, M.C. Wheeler. “Production of Biorenewable Thermal Deoxygenation Oil and Upgrading to Diesel and Jet Fuel Range Hydrocarbons” American Institute of Chemical Engineers (AIChE) Annual Meeting, San Francisco (virtual), **2020**
  5. R.W. Kimball, B.G. Sarnacki, **S.J. Eaton**, J.A. Henry, T. Wallace and T. Lokocz. “Diesel Engine Emissions/Performance of Emulsion Marine Fuels”. Proceedings of the 17<sup>th</sup> Annual General Assembly of the International Association of Maritime Universities (IAMU AGA 17) Hanoi, Vietnam **2016**.
  6. M.C. Wheeler, S.J. Eaton and W.J. Desisto. “Transportation Fuels Via a Two-Stage Thermal Deoxygenation Process” 252<sup>nd</sup> ACS National Meeting & Exposition, Philadelphia, PA **2016**.
  7. S.J. Eaton. “Alternative Fuels: Opportunities for Meeting Low Sulfur Targets”. 4<sup>th</sup> Biennial TRB-CMTS Research and Development Conference, Washington, D.C. **2016**
  8. S.J. Eaton, G.N. Harakas and R.W. Kimball. “Characterization of Glycerol-Diesel Emulsion Fuels”. American Institute of Chemical Engineers (AIChE) annual meeting, Atlanta, GA **2014**.
  9. S.J. Eaton, M.C. Wheeler and H.P. Pendse. “Levulinate and Formate Salt Reactions During Thermal Deoxygenation (TDO)”. American Institute of Chemical Engineers (AIChE) annual meeting, Atlanta, GA **2014**.
  10. S.J. Eaton, G.N. Harakas and R.W. Kimball. “Formulation and Combustion of Glycerol Emulsion Diesel Fuels”. American Society of Mechanical Engineers (ASME) 8<sup>th</sup> International Conference on Energy Sustainability (ESFuelCell2014), Boston, MA **2014**.
  11. S.J. Eaton, M.C. Wheeler, S.H. Beis, S.A. Karunarathne. “Thermal Deoxygenation (TDO): Effect of Cation on Production and Characteristics of Straight-Run Fuels”. American Institute of Chemical Engineers (AIChE) annual meeting, San Francisco, CA **2013**.
  12. S.J. Eaton, B.G. Bunting, M.C. Wheeler and G.P. van Walsum. “Engine Performance of Bio-Hydrocarbons Produced by Thermal Deoxygenation of Biomass Derived Organic Acids”. American Institute of Chemical Engineers (AIChE) Annual Meeting, Pittsburg, PA **2012**.
  13. G.N. Harakas, S.J. Eaton, R.W. Kimball, M.T. Kuflik, K.A. Pilot and J.M. Bullard. “Development and Evaluation of Glycerol-Diesel (Eco-Hybrid) Fuels with a Lower Environmental Impact for the Marine Industry”. 244<sup>th</sup> National Meeting of the American Chemical Society (ACS), Philadelphia, PA **2012**.
  14. B. G. Bunting, S. J. Eaton, J. Taylor, K. Nguyen, K. Puduppakkam & E. Meeks: “A Comparison of HCCI Engine Performance Data and Kinetic Modeling Results Over a Wide Range of Gasoline Range Surrogate Fuel Blends.” Directions in Engine-Efficiency and Emissions Research (DEER), Dearborn, MI **2009**.

15. B. G. Bunting, S. J. Eaton, J. Storey, S. A. Lewis, T. Barone & M. Connatser: "Detailed HCCI Exhaust Speciation – ORNL Reference Fuel Blends." Directions in Engine-Efficiency and Emissions Research (DEER), Dearborn, MI **2009**.
16. B. G. Bunting, T. J. Toops, K. Nguyen, S. J. Eaton, H. Kim & A. Youngquist: "Status Report: The Development of Rapid Aging and Protocols for Diesel Aftertreatment Devices." Directions in Engine-Efficiency and Emissions Research (DEER), Detroit, MI **2006**.
17. B.G. Bunting, S.A. Lewis, K. More, K. Nguyen and S.J. Eaton." Phosphorus Poisoning and Phosphorus Exhaust Chemistry with Diesel Oxidation Catalysts". 8<sup>th</sup> DOE Crosscut Workshop on Lean Emissions Reduction Simulation (CLEERS), Dearborn, MI **2005**.

### **Conference Posters**

1. M.C. Wheeler, S.J. Eaton and W.J. Desisto. "Transportation Fuels Via a Two-Stage Thermal Deoxygenation Process" 252<sup>nd</sup> ACS National Meeting & Exposition, Philadelphia, PA **2016**.
2. S.J. Eaton, M.C. Wheeler and H.P. Pendse. "Decomposition Pathways During Pyrolysis of Hydrolyzate Salts". Symposium on Thermal and Catalytic Sciences for Biofuels and Biobased Products (TCS2014), Denver, CO **2014**.
3. S.J. Eaton, M.C. Wheeler and H.P. Pendse. "Chemistry and Kinetic Modeling of Thermal Deoxygenation Reactions". American Institute of Chemical Engineers (AIChE) Annual Conference, San Francisco, CA **2013**.
4. S.J. Eaton, S.H. Beis, G.P. van Walsum, H.P. Pendse and M.C. Wheeler. "Thermal Deoxygenation of Woody Biomass Hydrolyzate". The Third International Conference on Thermochemical Conversion of Biomass (TCBiomass2013), Chicago, IL **2013**.
5. S.J. Eaton, G.N. Harakas and R.W. Kimball. "Eco-Hybride Diesel/Glycerin Based Emulsion Fuel: A Low Emissions, Low Cost, Drop-in Diesel Fuel". Directions in Engine-Efficiency and Emissions Research (DEER), Detroit, MI **2012**.
6. S. J. Eaton, R. Kimball, C. Pelletier, C. Tolman & P. Betti: "SNAME at Maine Maritime Academy, Development of alternative heavy marine fuels." Society of Naval Architects and Marine Engineers Symposia Operating Ships Within Emission Control Areas (ECA's), San Francisco, CA **2010**.
7. T.L. Barone, J.M.E. Storey, S.J. Eaton and B. Bunting: "The influence of fuel chemical composition on Particulate Emissions from an Advanced Combustion Engine." American Association of Aerosol Research Annual Conference, Minneapolis, MN **2009**.
8. S. J. Eaton, B. G. Bunting, T. J. Toops & K. Nguyen: "Impact of Lube-Oil Phosphorus on Diesel Oxidation Catalysts." Directions in Engine-Efficiency and Emissions Research (DEER), Detroit, MI **2007**.

Scott J. Eaton, PhD

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9. S. A. Lewis, B. G. Bunting & S. J. Eaton: “Determining the Combustion Product of Zinc Dialkyldithiophosphate Using Electrospray Mass Spectrometry.” Directions in Engine-Efficiency and Emissions Research (DEER), Chicago, IL **2005**.
10. B. G. Bunting, S. A. Lewis, T. J. Toops, K. Moore, K. Nguyen, A. Gopinath, S. J. Eaton & H. Kim: “Development of Rapid Aging and Poisoning Methods for the Verification of Combustion Engine Aftertreatment Devices.” Directions in Engine-Efficiency and Emissions Research (DEER), Chicago **2005**.

## ASHEESH LANBA

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### EDUCATION

**Ph.D. - Pennsylvania State University, University Park, PA, USA** 2009 - 2015

*Engineering Science and Mechanics*

- Dissertation: *NiTi-based Shape Memory Alloys: Relating Physical Deformation Mechanisms and the Wide Hysteresis*; Advisor: Dr. Reginald F. Hamilton

**B. Eng - Nanyang Technological University, Singapore** 2005 - 2009

*Mechanical Engineering*

- Specialization: *Aeronautical Engineering*
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### EXPERIENCE

**Assistant Professor of Mechanical Engineering, University of Southern Maine, Portland, ME, USA** 2019-Present

- Teach materials science and mechanics-based courses and laboratories. Specific courses include EGN260 – Materials Science for Engineering, MEE259 – Statics and Strength of Materials Laboratory, MEE356 – Introduction to the Finite Element Method, MEE270 – Applied Mechanics: Dynamics, EGN498 – Advanced Topics in Materials Science.
- **Director of the Composite Engineering Research Laboratory (CERL)**, where I am principal investigator in charge of approximately \$1.2 million worth of equipment, overseeing industry-based research projects
- Founded the first student chapter of the Society for the Advancement of Material and Process Engineering (SAMPE), and the current faculty advisor.
- **Principal investigator (PI) of the laser and materials engineering (LAME) research laboratory**, where we conduct research on advanced materials (composites, biopolymers, shape memory alloys (SMAs)) characterization and applications, laser ablation tomography (LATscan), and automating image segmentation/classification via machine learning.
- Consult with industry on product development and commercialization
- Serve on the Maine Technology Institute (MTI) Composites Material Technology Board, providing reviewer input on investment applications and acting as an ambassador to targeted industry sectors
- Designed and deployed over 250 3D printed face-shields to healthcare and essential workers during the COVID-19 pandemic.

**Chief Operations Officer, Lasers for Innovative Solutions, State College, PA, USA** 2015-2019

- Supervise and undertake Laser Ablation Tomography (LATscan) projects to deliver data to researchers all over the world. The novel technology is used for 3D structural and anatomical analyses ([www.LATscan.com](http://www.LATscan.com))
- Developed LATscan to image composite, metallic and dense biological material like corals and bones
- Designed and machined components for open beam paths, scanner, stages and machine vision
- Oversee all scientific collaborations with researchers all over the world to develop innovations in laser-based processes
- Enabled systems integration between laser, scanner, stages and machine vision for high-throughput LATscan and micro-machining projects
- Characterize machined materials via SEM, optical microscopy to analyze cut quality, heat-affected zones and dimensions
- Established image processing pipelines for segmentation and quantification to identify anatomical and morphological features for high-throughput LATscan projects
- Developing LATChem, an extension of the existing technology that will utilize 3D spectroscopy to identify the chemistry of features being visualized via LATScan

**Graduate Research/Teaching Assistant, Pennsylvania State University, University Park, PA, USA** 2009 -2015

***Thermo-mechanical Characterization of Martensitic Transformation in NiTi Shape Memory Alloys***

- Applied an innovative energetic analysis methodology to quantify elastic strain and irreversible energy contributions from calorimetric analysis
- Demonstrated for the first time the thermal rate dependence of the energetics associated with the differential phase transformations in NiTi
- Designed, built and optimized a heating/cooling system on a uniaxial load frame that allowed temperature variation between -120 and 400 °C
- Optimized full-field strain analysis via Digital Image Correlation to analyze in-situ micro-scale deformations
- Exposed for the first time the evolution of full-field micro-scale strains of the stress-biased thermally-induced transformation and reversal of reoriented martensite in NiTi alloys
- Established the influence of applied loading mode on superelastic stabilization

***Developing Structure-Property-Function Relationships for Wide Hysteresis Composite NiTiNb alloys***

- Discovered consequences of strain energy relaxation that lead to widening of thermal hysteresis and reverse transformation temperature interval
- Conducted original comparative study contrasting the microstructure, martensitic transformation and failure of cast versus deformation-processed alloys
- Discovered and characterized unconventional shape memory effect behavior in a temperature regime where superelastic recovery is expected
- Introduced a new opportunity for pre-straining at high temperatures for heat-to-recover applications, specifically to strengthen concrete bridge girders

***Teaching and Mentoring***

- Taught 'Statics', 'Strength of Materials' and 'Dynamics' to two classes of around 70 students
- Conducted undergraduate laboratory sessions for 'Experimental Stress Analysis', and delivered lectures to a class size of 35 students as a substitute professor
- Held responsibility for grading quizzes and exams, and maintained class gradebooks
- Trained and mentored undergraduate students on materials characterization under NSF Research Experience for Undergraduates.

**Undergraduate Research, Nanyang Technological University, Singapore** 2008-2009

- Investigated theoretical and analytical means (involving ANSYS) for stress intensity factor computation in fracture mechanics
- Developed a new crack tip element that is tolerant to severe mesh distortion, for stress intensity factor computation using the Finite Element Method (involving MATLAB)
- Developed and structured a project to prevent chipboard factory fires caused by spontaneous ignition of sawdust using the 'Bifurcation Technique' by creating a new mathematical model

**Industrial Attachment Internship, ExxonMobil Asia Pacific Private Limited, Singapore** 2007

- Nominated for the industrial attachment book prize for top 7 internships of the year
- Worked as Reliability Engineering Trainee with the Singapore Intermediates and Aromatics refinery
- Created and maintained a technical resources management system that resulted in reduction of reliability and maintenance costs by 14% over the previous year
- Designed and implemented a solution to prevent the hazardous effect of a nitrogen leak in the office ventilating system

## Publications

- **Lanba, A.**, Hall, B. and Huff, W., 2022. *Laser Ablation Tomography for Rapid Three-Dimensional Tissue Imaging and Analysis*. Journal of Engineering and Science in Medical Diagnostics and Therapy, 5(4), p.041006.
- Morrison III, W.R., **Lanba, A.**, Hall, B. and Bruce, A., 2020. *Novel implementation of laser ablation tomography as an alternative technique to assess grain quality and internal insect development in stored products*. Journal of Stored Products Research, 86, p.101552.
- Hall, B. & **Lanba, A.**, 2019. *Three-dimensional analysis of biological systems via a novel laser ablation technique*. Journal of Laser Applications, 31(2), p.022602.
- Dilibal, S., Hamilton, R.F. & **Lanba, A.** (2017). *The effect of employed loading mode on the mechanical cyclic stabilization of NiTi shape memory alloys*. Intermetallics, 89, 1-9
- **Lanba, A.**, & Hamilton, R. F. (2015). *The Impact of Martensite Deformation on Shape Memory Effect Recovery Strain Evolution*. Metallurgical and Materials Transactions A, 46A, 3481-3489
- Hamilton, R. F., **Lanba, A.**, Ozbulut, O., & Tittmann, B. (2015). *Shape Memory Effect in Cast versus Deformation-Processed NiTiNb Alloys*. Shape Memory and Superelasticity, 1, 117-123
- Ozbulut, O.E., Hamilton, R.F., Sherif, M.M. and **Lanba, A.**, (2015). *Feasibility of self-pre-stressing concrete members using shape memory alloys*. Journal of Intelligent Material Systems and Structures, 26(18), 2500-2514.
- **Lanba, A.**, & Hamilton, R. F. (2014). *Elastic and Irreversible Energies of a Two-Stage Martensitic Transformation in NiTi Utilizing Calorimetric Measurements*. Metallurgical and Materials Transactions A, 45A, 2732–2740

## Conference Proceedings

- **Lanba, A.** & Hall, B. (2019). *Laser Ablation Tomography for 3D Tissue Imaging and Analysis*, ASME International Mechanical Engineering Congress and Exposition (IMECE)
- Michaels, S. C., Moses, K. C., Bachmann, R. J., Hamilton, R. F., Pena-Francesch, A., **Lanba, A.**, Demirel, M.C. & Quinn, R. D. (2015). *Biomimicry of the Manduca sexta Forewing using SRT Protein Complex for FWMAV Development*. Living Machines, 4th International Conference on Biomimetics and Biohybrid Systems
- Hamilton, R. F., **Lanba, A.**, & Ozbulut, O. (2015). *Characterization of Martensitic Transformation Morphology in Wide Hysteresis Shape Memory Alloys*. In J. Carroll & S. Daly (Eds.), *Fracture, Fatigue, Failure, and Damage Evolution*, Volume 5: Proceedings of the 2014 Annual Conference on Experimental and Applied Mechanics (Vol. 5, pp. 145–151). Cham: Springer International Publishing
- Sherif, M., Ozbulut, O., **Lanba, A.**, & Hamilton, R. F. (2014). *Self-Post-Tensioning for Concrete Beams Using Shape Memory Alloys*. In ASME 2014 Conference on Smart Materials, Adaptive Structures and Intelligent Systems: American Society of Mechanical Engineers
- **Lanba, A.**, & Hamilton, R. F. (2013). *NiTi-based SMAs for Self-Post-Tensioned Bridge Girders*. In American Society for Composites 28th Technical Conference. State College, PA
- **Lanba, A.**, & Hamilton, R. F. (2012). *Localized Strain Morphology during the Martensitic Transformation in Trained Shape Memory Alloys*. In Proceedings of the 2012 Conference on Engineering Materials: Evaluation, Flaw Detection and Processing METLAB-SDSU. Brookings, SD

## Invited Oral Presentations

- *Revealing Morphology of Biological Systems via Laser Ablation Tomography*, Division of Plant Sciences Seminar Series Spring 2021, University of Missouri, March 3, 2021
- *Laser Ablation Tomography (LATscan) for Imaging and Analysis of Biological Samples*, Bioscience Association of Maine (BioME) Coffee Hour, August 20, 2020
- *Three-Dimensional Analysis of Biological Systems via a Novel Laser Ablation Technique*, ICALEO, Rosen Centre Hotel, Orlando, FL, USA, October 14-18, 2018
- *Influence of Pre-strain Level on Shape Memory Effect of NiTiNb alloys*, SEM Midwest Graduate Student Symposium on Experimental Mechanics, University of Michigan, Ann Arbor, MI, USA, May 24-25, 2014
- *NiTi-based SMAs for Self-Post-Tensioned Bridge Girders*, American Society for Composites 28th Technical Conference, State College, PA, USA, September 9-11, 2013
- *Martensitic Transformation Morphology and Tailoring Wide Hysteresis Shape Memory Alloys*, Materials Science and Technology 2013 Conference and Exhibition, Montreal, Quebec, Canada, October 27-31, 2013

- *Localized Strain Morphology during the Martensitic Transformation in trained Shape Memory Alloys*, Conference on Engineering Materials: Evaluation, Flaw Detection and Processing, South Dakota State University, Brookings, SD, USA, May 17-19, 2012
- *In-situ Characterization of the Martensitic Transformation Morphology in Shape Memory Alloys*, 9th Graduate Research Symposium in Department of Engineering Science and Mechanics, State College, USA, February 11, 2012

#### **Invited Poster Presentations**

- *The Shape Memory Effect in Cast and Processed NiTiNb Alloy Microstructures*, Materials Day at the Pennsylvania State University, State College, PA, USA, October 2014
- *Self-Post-Tensioned Concrete Using Shape Memory Alloys for Bridge Girders*, Center for Acoustics and Vibration Workshop, State College, PA, USA, 2014
- *Localized Strain Morphology during the Martensitic Transformation in trained Shape Memory Alloys*, Center for Acoustics and Vibration Workshop, State College, PA, USA, 2012
- *In-situ Characterization of the Martensitic Transformation Morphology in Shape Memory Alloys*, 9th Graduate Research Symposium in Department of Engineering Science and Mechanics, State College, USA, February 11, 2012
- *Energetic Analysis of the Thermal-Induced Martensitic Transformation in NiTi*, 8th Graduate Research Symposium in Department of Engineering Science and Mechanics, State College, USA, February, 2012

#### **Honors and Awards**

- Faculty Senate Award USM for Excellence in Teaching, Scholarship, University Service, and Community Service - 2020
- Invent Penn State Audience Award for LAT – 2016
- Dr. Sabih & Mrs. Güler Hayek Graduate Scholarship for Academic Excellence - 2011
- KlingStubbins Engineering Graduate Scholarship - 2010
- SIA-NOL Undergraduate Scholarship - 2005-2009

#### **Reviewer - Journals**

- Materials
- Coatings
- Metallography, Microstructure, and Analysis
- Advances in Science and Technology
- Applied Sciences
- Buildings

CARLOS L. LÜCK, PH.D.

Engineering Department – University of Southern Maine – Gorham, ME 04038

Tel. (207) 780-5583 – e-mail: carlosl@maine.edu

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- EDUCATION**      **Ph.D.** in Electrical Engineering – University of Southern California, 1995.  
**M.S.** in Computer Engineering – University of Southern California, 1992.  
**B.S.** in Electrical Engineering - Power Systems – Univ. São Paulo. Brazil, 1988.  
**B.S.** in Electrical Engineering - Electronics – Univ. São Paulo. Brazil, 1987.
- EXPERIENCE**      **University of Southern Maine** – 1995 to present  
Coordinator of the Robotics and Intelligent Systems Laboratory since 1999.  
Associate Professor of Electrical Engineering since 2001  
Department Chair – 2003 to 2006  
Department Chair – 2019 to present  
**University of Southern California** – 1991 to 1995  
Robotics Instructor and Laboratory Manager.  
**Equitron – Electro-Mechanic Automation Ltd, Brazil** – 1989  
Design Engineer – pneumatic control and power regulators.  
**University of Darmstadt, Germany** – 1988  
Design Engineer – pneumatic control and power regulators.
- PUBLICATIONS**      “Multimeter Design Kit for Circuit Theory Education,” Proceedings of the 2019 ASEE Zone 1 Conference, Niagara Falls, NY, 2019.  
“Teaching Robotics Through Self-Directed Learning (Or Is It The Other Way Around?),” Proceedings of the 2016 ASEE Northeast Section Conference, Kingston, RI, 2016.  
“Progress with a Synergistic Mechanical Engineering Degree Program”, Proceedings of the 2012 ASEE Northeast Section Conference, Lowell, MA, 2012.  
“Synergy Approach to a New Mechanical Engineering Degree Program”, *Proceedings of the ASEE Spring 2009 Northeast Conference*, Bridgeport, CT, 2009 (with J. Smith).  
“Identifying the Failure-Tolerant Workspace Boundaries of a Kinematically Redundant Manipulator,” by Rodney Roberts, Rodrigo Jamisola and Anthony Maciejewski, Proceedings of the 2007 IEEE International Conference on Robotics and Automation, Rome, Italy, 2007 (collaboration).  
“Topology,” article submitted for publication in the *Encyclopedia of Electrical Engineering and Electronics*, John Wiley & Sons, under peer review.  
“Simubot Version 3.0” for the *SIMUBOT Software Package under License with Questech, Inc.*, University of Southern Maine, May 2004.  
“Intelligent Fixturing for Precision Manufacturing,” Proceedings of the *IASTED International Conference on Applied Modelling and Simulation*, November 2002, Cambridge, MA.  
“A Graphical Teaching Tool for Understanding Two's Complement,” publication in the *ERIC - Educational Resources Information Center*, maintained by The National Library of Education, December 2000.



“Simubot Version 2.0” for the *SIMUBOT Software Package under License with Questech, Inc.*, University of Southern Maine, May 2000.

“A Graphical Teaching Tool for Understanding Two's Complement,” Proceedings of the *1998 International Conference on Engineering Education*, Rio de Janeiro, Brazil, 1998.

“Dexterity of Redundant Robotic Manipulators in the Presence of Kinematic Constraints,” *Proceedings of the International Conference on Combinatorics, Information Theory and Statistics*, Portland, Maine, 1997.

“Topology-Based Discretization for Modeling and Path Planning Optimization of Redundant Robotics Manipulators,” Proceedings of the *International Conference on Combinatorics, Information Theory and Statistics*, Portland, Maine, 1997.

“Self-Motion Representation and Global Path Planning Optimization for Redundant Manipulators through Topology-Based Discretization,” *Journal of Intelligent and Robotic Systems*, Vol. 19, No. 1, pp. 23-38, May 1997.

“Robot Cartography: A Topology-Driven Discretization for Redundant Manipulators,” Proceedings of the *IEEE International Conference on Robotics and Automation*, Minneapolis, Minnesota, 1996.

“Topology-Based Analysis for Redundant Manipulators under Kinematic Constraints,” Proceedings of the *34th IEEE Conference on Decision and Control*, New Orleans, Louisiana, 1995 (with S. Lee).

“Redundant Manipulators under Kinematic Constraints: A Topology-Based Kinematic Map Generation and Discretization,” Proceedings of the *IEEE International Conference on Robotics and Automation*, Nagoya, Japan, 1995 (with S. Lee).

“A Topology-Based Space Discretization Method for Global Path Planning of Redundant Manipulators,” Proceedings of the *ANS 6th Topical Meeting on Robotics and Remote Systems*, Monterey, California, 1995.

“Symbolic Jacobian Inversion for Redundant Manipulators with an 8-DoF Case Study,” *Proceedings of the American Nuclear Society 6th Topical Meeting on Robotics and Remote Systems*, Monterey, California, 1995.

“The Semi-Singularity and a Topology-Based Global Path Planning Approach for Redundant Manipulators,” Proceedings of the *IEEE/RSJ/GI International Conference on Intelligent Robots and Systems*, München, Germany, 1994 (with S. Lee).

“Global Path Planning of Redundant Manipulators Based on Self-Motion Topology,” Proceedings of the *IEEE International Conference on Robotics and Automation*, San Diego, California, 1994 (with S. Lee).

“Self-Motion Topology for Redundant Manipulators with Joint Limits,” Proceedings of the *IEEE International Conference on Robotics and Automation*, Atlanta, Georgia, 1993 (with S. Lee).

#### **SOCIETIES AND HONORS**

**University of Southern Maine Faculty Senate Award** –Excellence in Service, 2012.

**Session Chair** – IEEE International Conference on Robotics and Automation, Rome, Italy, April 2007.

**Session Chair** – IASTED International Conference on Applied Modelling and Simulation, Cambridge, MA, November 2002.

**University of Southern Maine Faculty Senate Award** –Excellence in Teaching, 2002.

**Questech’s Microbot Advisory Board** – 2000 to present.

**Nelson & Small Prize**, for special contributions to the University of Southern Maine Electrical Engineering Program. May 1999.

**IEEE** – The Institute of Electrical and Electronics Engineers, 1990 to present  
 Robotics and Automation Society, 1990 to present  
 USM IEEE Student Branch Advisor, 1995 to 2003, 2008 to present  
 IEEE Maine Section Executive Committee, 1995 to 2003.

**ASEE – American Society for Engineering Education** – 1995 to present.

**ASME – The American Society of Mechanical Engineers** – 2004 to present  
 USM ASME Student Section Advisor, 2008 to present.

**IE** – Instituto de Engenharia, São Paulo, Brazil. Valedictorian Honor Member, class of 1987, University of São Paulo.

#### **PRODUCT LICENSE**

Software License Agreement between the University of Southern Maine and Questech, Inc. for the sale of *SIMUBOT*, a graphical simulator and kinematic controller for the Teachmover Microbot Manipulator.

#### **GRANTS**

“New Core Compliance Workshop,” a USM Core Curriculum Course Development and Implementation grant proposal sponsored by the Office of Undergraduate Education, 5/30/2008. \$200. Funded.

NASA Equipment Grant: *LEGO Platform for SLAM investigation* (with N. Steier). 2006-2007. \$2,500. Funded.

NASA Equipment Grant: *Vision for an Autonomous Blimp* (with J. Petersen) 2006-2007. \$2,500. Funded.

NASA Scholarship: *SLAM with the LEGO Platform* (for N. Steier). 2006-2007. \$2,500 plus travel expenses to the Jet Propulsion Laboratory, Pasadena, CA. Funded.

MSGC NASA Summer Funding: *Feasibility Study of SLAM with the LEGO Platform* (with N. Steier). Summer 2006. \$500. Funded.

Maine Technology Institute Seed Grant: *Stereotactic Frame for Brain Surgery* (Principal Investigator: J. Florman, MD). 2003. \$12,080. Funded.

NASA Scholarship: *Design and Control of Biologically Inspired Wings with Active Deformation* (for C. Chicoine). 2002-2003. \$2,500 plus travel expenses to the NASA Langley Research Center, Virginia. Funded.

NASA EPSCoR 2000 Competition: *Autonomous Navigation with Visual Servoing*. 2001-2003. \$616,740. Not funded.

NASA Scholarship: *Autonomous Navigation and Workspace Mapping with the Rug Warrior Pro* (for J. Williams). 2001-2002. \$2,500 plus travel expenses to the Jet Propulsion Laboratory, Pasadena, CA. Funded.

Curriculum Vitae: Carlos Lück

Page 4

NASA Scholarship: *Path Planning and Memory Recognition Development in Robotic Rover Vehicles* (for J. Quinby). 1999-2000. \$2,500 plus travel expenses to the Jet Propulsion Laboratory, Pasadena, CA. Funded.

**CONSULTING**      GPS-911, LLC, Sensor-activated Wireless Communications, Memphis, TN – 2006-2007.  
Caron Engineering, Wells, Maine – 2002-2003.  
Jeffrey Florman, MD, Neurosurgery Associates, Portland, Maine – 2003-2005.

Updated 3/31/2021.

# Michael P. Davis, Ph. D.

57 Libby Lane • Brunswick, ME 04011 • (207) 891-8620 • michael.p.davis@maine.edu

<b>OBJECTIVE</b>	Contribute to continual improvement of undergraduate engineering education through project based learning and curricular integration.	
<b>EXPERIENCE</b>	<b>University Of Southern Maine</b> <i>Lecturer in Mechanical Engineering</i>	(2015-present)
	<ul style="list-style-type: none"><li>• Courses taught:<ul style="list-style-type: none"><li>○ Strength of Materials (including laboratory)</li><li>○ Engineering Mechanics: Statics &amp; Dynamics</li><li>○ Junior Design Project</li><li>○ First year Entry-Year-Experience course focusing on energy and environmental issues</li><li>○ Introduction to MATLAB programming</li></ul></li></ul>	
	<b>University of Maine Orono</b> <i>Lecturer, Brunswick Engineering Program</i>	(2012-2015)
	<ul style="list-style-type: none"><li>• Developed 30 credit hours of engineering curriculum, integrating computing, physics, and engineering mathematics in project-based courses.</li><li>• Course taught/developed:<ul style="list-style-type: none"><li>○ Integrated Engineering I 10 ch (equiv of Calc I, Physics I, comp. prog. in MATLAB)</li><li>○ Integrated Engineering II 9 ch (equiv of Calc II, Physics II, comp. prog. in C)</li><li>○ Integrated Engineering III 6 ch (equiv of Diff Eq, Linear Algebra)</li><li>○ Integrated Engineering IV 5 ch (equiv of Calc III)</li></ul></li><li>• STEM outreach to secondary education through high school visits, hosting of robotics events, and engineering expos.</li></ul>	
	<b>Bath Iron Works</b> <i>Senior Engineer, Mechanical Engineering</i>	(2008-2012)
	<ul style="list-style-type: none"><li>• Analyst for complex computational heat transfer, fluid mechanics, and dynamics applications</li><li>• Responsible for critical ship systems, including gas turbine generators, gas turbine intake/exhaust ducting, shaft and bulkhead seals, and emergency diesel generators</li><li>• Instructor for BIW Apprenticeship program, creating and delivering lectures on gas turbines for Marine Engineering Course</li></ul>	
	<b>Southern Maine Community College</b> <i>Adjunct Professor</i>	(2010)
	<ul style="list-style-type: none"><li>• Developed new 3 credit hour "Introduction to Marine Design" course offered in the fall of 2010 in partnership with BIW.</li><li>• Instructor for first offering of the class in the fall semester of 2010</li><li>• Taught course lectures to SMCC faculty for subsequent course offerings</li></ul>	
	<b>Pratt and Whitney, East Hartford Connecticut</b> <i>Controls and Diagnostic Systems Engineer</i>	(2001-2006)
	<ul style="list-style-type: none"><li>• Designed and verified engine system FADEC software to support the PW6124 commercial engine program within budget and time schedule constraints</li><li>• Active role in process quality improvement (awarded P&amp;W employee appreciation award for contributions):<ul style="list-style-type: none"><li>– Developed software tool to help digitize the software design process</li><li>– Trained 5 offshore staff in certification tasks, reducing certification costs</li></ul></li></ul>	

## EDUCATION

**University of Notre Dame, Notre Dame Indiana**  
**Ph. D., Mechanical Engineering GPA 3.93/4.0** (2008)

**Dissertation:** “*Experimental Characterization of Aviation Fuel Cavitation*”

*Teaching Assistant*

- TA for variety of courses, including Fluid Mechanics, Thermodynamics, and Introduction to Aerospace Engineering

*Research Assistant*

- Partnered with Honeywell, INC to improve fuel pump reliability inhibited by cavitation damage
- Designed and constructed fuel cavitation test bench to validate Honeywell multi-phase flow design guidelines

**Worcester Polytechnic Institute, Worcester Massachusetts**

**M.S., Mechanical Engineering GPA 3.81/4.0** (2001)

**Thesis:** “*Low Order Modeling of Freely Vibrating Flexible Cables*”

*Teaching Assistant*

- TA for variety of courses, including Statics, Strength of Materials, Machine Design, and Control Systems

*Research Assistant*

- Designed and fabricated water tunnel experiments to study free cable vibration
- Developed Labview model to simulate free cable vibration for implementation of control strategies

**University of Notre Dame, Notre Dame Indiana**

**B.S. Cum Laude Aerospace Engineering GPA 3.53/4.0** (1998)

*Work Study:*

- Tutor for general chemistry and organic chemistry
- Department of Mechanical Engineering summer intern

*Activities:*

- Sigma Gamma Tau (Aerospace Honor Society)
- Tau Beta Pi (Engineering Honor Society)
- AIAA Student Member
- University Marching Band

## PUBLICATIONS

Dunn, Patrick F. and Davis, M. P. **Measurement and Data Analysis for Science and Engineering (4<sup>th</sup> ed).** CRC Press, December 2017.

Friess, W.A., and Davis, M.P. **First cohort student retention challenges in a startup program.** Proceedings of LACCEI conference Guayaquil, Ecuador, July 2014.

Friess, W.A., Davis, M.P. and Faulhaber, C. **First and Second Year Common Projects for Curricular Integration.** Proceedings of Canada International Conference on Education (CICE-2014), Cape Breton University, Nova Scotia, Canada. June 2014.

Davis, M.P., and Friess, W.A. **Development, implementation and assessment of a common first year end-of-semester engineering design project in an integrated curriculum .** Proceedings of IEEE Frontiers in Education Conference, Oklahoma City. October 2013

Dunn, Patrick F., Flint O. Thomas, Michael P. Davis and Irina Dorofeeva, **Experimental Characterization of Aviation-Fuel Cavitation,** *Physics of Fluids* 22, 2010.

Davis, Michael P., Dunn, Patrick F., and Flint O. Thomas. **Jet Fuel Cavitation in a Converging Diverging Nozzle.** *Proceedings of the 45<sup>th</sup> AIAA Aerospace Sciences Meeting, Paper Number AIAA-2007-337*, 2007.

**AMARPREET S. KOHLI, Ph.D.**

Associate Professor of Operations & Supply Chain Management  
School of Business, College of Management & Human Service

University of Southern Maine

amarpreet.kohli@maine.edu, 207-780-4305

<https://usm.maine.edu/school-of-business/amarpreet-kohli>

**EDUCATION**

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**Massachusetts Institute of Technology, MA**

Executive Program – Artificial Intelligence: Implications for Business Strategy (2020)

**University of Louisville, KY**

Ph.D. in Industrial Engineering (2005)

Speed Scientific School - **4.0/4.0**(G.P.A)

**AIMA, Delhi (India)**

Master's in Business Administration (2000)

**Bangalore University, Bangalore (India)**

Bachelor of Mechanical Engineering with **distinction**

R.V. College of Engineering, Bangalore University (1994)

**ACADEMIC TEACHING EXPERIENCE**

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2012 – Present

Associate Professor (Tenured), Operations and Supply Chain  
Management, School of Business, University of Southern Maine, ME

Graduate Course Instruction

Supply Chain Management (MBA 672)

Undergraduate Course Instruction

Production and Operations Management (BUS 375)

Supply Chain Management (BUS 372)

2006 – 2012

Assistant Professor, Operations and Supply Chain Management,  
School of Business, University of Southern Maine, ME

Graduate Course Instruction

Supply Chain Management (MBA 672)

Probability and Statistics (MBA 504)

Undergraduate Course Instruction

Production and Operations Management (BUS 375)

Applied Business Analysis/Business Statistics (BUS 275)

2005 – 2006

Assistant Professor, Operations Management, Southwestern College, KS

Graduate Course Instruction

Operations Management (MGMT 640)

Undergraduate Course Instruction

Supply Chain Management (BUS 445)

Operations Management (BUS 390)

Quantitative Methods/Management Science (BUS 318)

*Teaching Interests*

Undergraduate Coursework

Operations Management, Supply Chain Management, Quantitative Methods (Management Science), Production and Inventory Control, Fundamentals of Quality Control, Business Statistics, Data Analytics

Graduate Coursework

Operations Management, Supply Chain Management, Advanced Quantitative Methods, Design of Experiments, Data Analytics

*Partnership in Teaching*

Courses I teach involve student projects within the business community, listed below are some of the projects completed by my students:

- Consumables Forecasting & Inventory Management at Texas Instruments (TI).
- Improving ROI, Profit & Customer Service at LAI International, Scarborough, ME
- Reducing chemical waste at the East End Wastewater Treatment Plant: A supply chain optimization strategy study, Portland, ME
- Study of Demand Forecast and Inventory Policy Models at US Cellular® Corp
- Implications of Channel Shift on Multi-Channel Retailers (Case Study) at L. L. Bean, Freeport, ME
- Qualitative to Quantitative Supply Chain Management Decisions at Fetch Enterprises, LLC, Portland, ME
- Compact Fluorescent Light Bulbs and Proper Recycling Programs to Avoid an Ecological Disaster
- Determine the Effectiveness of Shipyard's SCM: Forecasting of its Demand in the Northeast and Location of its Distributors at Shipyard Brewing Company, Portland, ME

- Downstream Defenders in the Northwest with Focus on Production, Assembly, and Delivery Logistics Surrounding the Downstream Defender® (an advanced vortex separator product) at Hydro International, Portland, ME
- Analysis and Recommendations of the Sales and Operations Planning (S&OP) Process at Fairchild Semiconductor, Portland, ME
- Development of Green Coffee - Demand Forecast Model by Apply Holt's Linear Exponential Smoothing and Optimize Coffee Projections by Running a Newsboy Analysis for Each of the 9 months of Data at X Café, Portland, ME
- L. L. Bean Sporting Goods Specialty Shops - Recognizing the constraints of the current processes identifying where improvements can be made using vendor managed inventory, L. L. Bean, Freeport, ME
- Explore the Use of RFID Technology in the Hannaford Supply Chain at Hannaford Bros. Inc., Scarborough, ME

## RESEARCH

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### *Research Interests*

- New innovative technologies in supply chain and operations including Blockchain, Artificial Intelligence, RFID and Cloud Computing
- Supply Chain Collaboration and related technological integration using empirical modeling.
- Interdisciplinary empirical research within other business disciplines and other areas related to DEI, teaching, and self-compassion.

### *Refereed Journal Publications and Proceedings (Accepted/Published)*

- Kohli, H.K., Wampole, D., Kohli, A.S., Peng, C & Polyakova, D. (2022). Association between self-compassion and demographics of university students adjusted by gratitude (accepted in *International Journal of Progressive Education*).
- Xu, Z., Vail, C., Kohli, A.S. & Tajdini, S. (2021). Measuring Brand Positioning and Marketing Strategies through Information Fusion: A Framework based on Relationship Marketing, *Journal of Marketing Analytics*, Volume 9, Issue 1, Pages 3-16.
- Kohli, H.K., Wampole, D. & Kohli, A.S. (2021). Impact of Online Education on Student Learning during the Pandemic, *Studies in Learning and Teaching*, Volume 2, Issue 2, Pages 1-11
- Stephenson, C., Xu, Z., Chen, J., Kohli, A.S., Sedler, E. & Johnson, K. (2018). Social Networking and Event Attendance: Identifying the Underlying Factors. *AMA Summer Academic Conference*, Chicago, IL.
- Kohli, A.S. & Peng, C. (2017) – Factors affecting willingness of Industries to adopt RFID, *International Journal of Information Systems and Supply Chain Management*, Volume 10, Issue 3, Pages 24-43



- Kohli, H.K., Ross, F., Kohli, A.S. & Peng, C. (2016). Universal-Diverse Orientation of Business, Education, and Social Work students, *International Journal of Management in Education*, Volume 10, Issue 2, Pages 111-130
- Kohli, A. S. & Hawkins, E. (2015). Motivators to adopt Green Supply Chain Initiatives, *International Journal of Information Systems and Supply Chain Management*, Volume 8, Issue 4, October-December, Pages 1-13
- Kohli, A.S. (2012). Closed-Loop Supply Chain (CLSC) Practices: Motivators and Pressures for Businesses, *International Journal of Research in Management, Economics and Commerce*, Volume 2, Issue 11, November, Pages 525-533
- Kohli, A. S., Peng, C., & Mittal, P. (2011). Predictors of Student Success in Undergraduate Business Statistics Course, *Journal of Academy of Business and Economics*, Volume 11, Number 4, Pages 32-42
- Hawkins, E., & Kohli, A. S. (2011). Green Supply Chains: Key Drivers for Participation. *Decision Sciences Institute (DSI) Annual Conference*, Boston, MA
- Kohli, A. S. & Jensen, J. (2010). Assessing Effectiveness of Supply Chain Collaboration: An Empirical Study, *Supply Chain Forum: An International Journal*, Volume 11, Number 2, Pages 2-16
- Kohli, A. S. & Gupta, M. S. (2010). Improving Operations Strategy: Application of TOC Principles in a Small Business, *Journal of Business & Economics Research*, Volume 8, Number 4, Pages 37 – 46
- Kohli, H. K., Kohli A. S., Huber, R., & Faul, A. (2010). Assessing Cultural Competence in Graduating Students, *International Journal of Progressive Education*, Volume 6, Number 1, Pages 6 – 27
- Kohli, A. S., Sharma, D. K., Gerold, J., & Pastorino, F. (2009). Application of TOC in U.S. Army's Recruiting Processes, *International Academy of Business and Economics (IABE) Annual Conference*, Las Vegas, NV
- Kohli, A. S., Sharma, D. K., Gerold, J., & Pastorino, F. (2009). Theory of Constraints: An Application in U.S. Army's Recruiting Process, *Journal of Academy of Business and Economics*, Volume 9, Issue 3, Pages 164 – 174
- Kohli, A. S., & Alexander, S., & Gupta, M. (2009). A Continuous Simulation Model to Analyze Effectiveness of CPFR (Collaborative Planning Forecasting & Replenishment), *International Conference on Value Chain Sustainability (ICOVACS)*, Louisville, KY
- Kohli, A. S., Gupta, M. S., & Alexander, S. (2009). Experimental Assessment of Collaboration in Automotive Supply Chain, *International Journal of Decision Science & Information Technology*, Volume 1, Issue 1, Pages 40 – 53
- Kohli, A. S., Alexander, S., & Gupta, M. S. (2008). A Dynamic Simulation Study to Assess the Impact of Collaboration on the Performance of a Supply Chain Subject to a Variety of Demand Environments, *The Journal of Management and Engineering Integration*, Volume 1, Issue 1, Pages 73 – 87
- Kohli, A. S. & Sharma, D. K. (2007). Supply Chain Management and its Impact on Operation Decisions, *International Journal of Effective Management*, Volume 4, Issue 1, Pages 47 – 64

- Gupta, M. S. & Kohli, A. S. (2006). Enterprise Resource Planning Systems and its Implications for Operations Function, *Technovation: The International Journal of Technological Innovation and Entrepreneurship*, Volume 26, Issue 5-6, Pages 687 – 696
- Kohli, A. S. & Alexander, S. (2006) Collaboration and its Impact on Supply Chain Dynamics. *Institute of Industrial Engineers (IIE) Annual Conference*, Orlando, FL

Google Scholar: 435 Citations, h-index 7, i10-index 6

Research Gate Stats: 24235 Reads

#### *Refereed Journal Publications in Progress*

1. Kohli, A., Kumthekar, N., Shah, P. & Jauch, R. Understanding the Determinants of Blockchain Adoption Using the TOE Framework and Threat Rigidity Theory (Revise and Resubmit, *Target: International Journal of Information Management*)
2. Amendah, E. R., Kohli, A., & Kumthekar, N. Impact of Financial and Non-Financial Constructs on Customer Lifetime Value (CLV): A Retailer's Perspective (Revise and Resubmit, *Target: Journal of Relationship Marketing*)
3. Kohli, A., Kumthekar, N., Shah, P. & Jauch, R. Does disruption readiness affect technology adoption? The specific case of Artificial Intelligence (*Target: Journal of Business Research*)
4. Kohli, A.S., Nkhalamba, S. & Xu, Z. (2022). Using Text Mining and Sentiment Analysis to Analyze Smart Watch Market (*Data Analysis Phase, Target: Information Processing and Management: An International Journal*)
5. Kumthekar, N., Kohli, A., & Verma, B. Firm performance, and dyadic elasticities (*Data Analysis Phase, Target: Journal of Operations Management*)
6. Kumthekar, N. & Kohli, A.S. (2022). Servitization in the Manufacturing Sector: A Qualitative Perspective (*Data Collection Phase, Target: Journal of Operations Management*)
7. Kohli, A.S. & Peng, C. (2022). Improving success of at-risk students using analytics (*Data Analysis Phase, Target: Decision Science Journal of Innovative Education*)

#### *Professional Presentations*

- Kohli, A., Kumthekar, N., Shah, P. & Jauch, R. To Adopt Blockchain Technology or Not: Is the Decision-Making Process Immune to COVID-19?, Paper presentation, *Decision Sciences Institute (DSI) Annual Conference*, November 2022 (Refereed).
- Kumthekar, N., Kohli, A., Shah, P., Jauch, R., & Record, N (2021). "Technology Adoption in the COVID Era: A TOE Perspective" Paper presentation, *Decision Sciences Institute (DSI) Annual Conference*, November 2021 (Refereed).
- Kumthekar, N., Kohli, A.S. & Zuckero, J. (2020). Servitization in the Manufacturing Sector: A Qualitative Perspective. Paper presentation, *DSI Annual Conference*, November 2020 (Refereed).
- Nkhalamba, S., Kohli, A.S. & Xu, Z. (2018). Using Text Mining to Analyze Consumer Brands Sentiments of Smart Watches. Paper presentation, *INFORMS Annual Conference*,

- November, Phoenix, AZ (Non-Refereed)
- Stephenson, C., Xu, Z., Chen, J., Kohli, A.S, Sedler, E. & Johnson, K. (2018). Social Networking and Event Attendance: Identifying the Underlying Factors. *AMA Summer Academic Conference*, August, Chicago, IL (Refereed)
  - McDonnell, J.; Vail, C.; Tomenko, V., Vogel, M.; Xu, Z. & Kohli, A.S. (2017). Relationship marketing meets web 3.0 – Understanding your customer segments and the online strategy. Paper presented at *DSI Annual Conference*, November, Washington DC(Refereed)
  - Kohli, A.S. & Peng, C. (2016). Improving success of at-risk students. Paper presented at *DSI Annual Conference*, November, Austin, Texas, (Refereed)
  - Kohli, A.S.; Kohli, H.K & Peng, C. (2015). Measuring Interculture Competence Among Business, Education and Social Work Students. Paper presented at *INFORMS Annual Conference*, November, Philadelphia (Non-Refereed)
  - Kohli, A.S. (2014). Current Trends and Willingness to adopt RFID: An Empirical Study, Paper presented at *DSI Annual Conference*, November, Tampa, Florida (Refereed)
  - Kohli, A.S. (2012). Closed-Loop Supply Chain (CLSC) Practices: Motivators and Pressures for Businesses. Paper presented at *International Conference for IT & Business Intelligence*, Bhubaneswar, India, November 2012 (Refereed)
  - Hawkins, E., & Kohli, A. S. (2011). Green Supply Chains: Key Drivers for Participation. Paper Presented at *DSI Annual Conference*, Boston, Massachusetts, November 2011 (Refereed)
  - Kohli, A. S. (2010). Predictors of Student Success in Entry-Level Undergraduate Business Statistics Course. Paper Presented at *Decision Science Institute (DSI) Annual Conference*, San Diego, CA, November 2010 (Non-Refereed)
  - Kohli, A. S. (2010). Supply Chain Collaboration: When is it Effective, *LL Bean/Lee Surace Colloquium Series*, USM, March 2010 (Invited Speaker)
  - Kohli, A.S. & Jensen, J. (2009). An Empirical Model to Assess the Effectiveness of Supply Chain Collaboration. Paper Presented at The Institute for Operations Research and the Management Sciences *INFORMS Annual Conference*, San Diego, CA, October 2009 (Non-Refereed)
  - Kohli, A.S. & Alexander, S. & Gupta, M. (2009). A Dynamic Simulation Analysis of the Effectiveness of CPFR, Paper Presented by my co-author, *International Conference on Value Chain Sustainability (ICOVACS)*, Louisville, KY, October 2009 (Refereed)
  - Kohli, A.S. (2008). Collaboration Effectiveness in an Automotive Service Parts Supply Chain. Paper Presented at *International Conference on Logistics and Supply Chain Management (ILSCM)*, Coimbatore, India, August 2008 (Refereed)
  - Kohli, A.S. (2007). Supply Chain Management and its Impact on Operation Function. Paper presented at *Production and Operation Management Society (POMS) Annual Conference*, Dallas, Texas, May 2007 (Refereed)
  - Kohli, A.S., & Alexander, S. (2006) Collaboration and its Impact on Supply Chain Performance. Paper Presented by my co-author, *Institute of Industrial Engineers IIE Annual Conference*, Orlando, Florida, May 2006 (Refereed)
  - Kohli, A. S. (2005). A Dynamic Simulation Study to Assess the Impact of Collaboration

on Supply Chain Performance. Paper presented at *INFORMS Annual Conference*, San Francisco, CA, November 2005 (Non-Refereed)

- Kohli, A. S. (2003). System Dynamics Model to Study the Impact of CPFR on Supply Chain Performance. Paper presented at *Institute for Operations Research and the Management Sciences (INFORMS) Annual Conference*, Atlanta, October 2003 (Non-Refereed)
- Kohli, A. S. (2003). CPFR: Its Effect on Supply Chain Performance in the Presence of Contextual Moderators – A Dynamic Simulation Study. Poster presentation at the Ph. D. Colloquium, *System Dynamics Conference (Organized by MIT)*, New York, July 2003 (Non-Refereed)

### *Research/Training Grants*

- RRF Rural Health and Wellbeing Grand Challenge Grant Programs on “Assessing Disparities in Access to Advanced Medical Device Therapy in Maine”, CO-PI’s (Asheesh Lanba, Nihar Kumthekar – USM and Jennifer Crittenden, UMaine), UMS, \$30,000 (2021-2022)
- CCD Gap Funding Mini Grant, \$250 (Fall 2020)
- CCD/CTEL Faculty Technology Grant, \$250 (Spring 2020)
- Faculty Senate Research Grant on “Effect of innovativeness on the relationship between adoption of service-dominant view and firm performance in US manufacturing firms”, coauthored by Professor Kumthekar, USM, \$3000 (Fall 2019 – Spring 2020)
- USM Title III Mini Grant on Digital Marketing and Business Analytics Students Competition, coauthored by Professors (Xu, Heiser & Takeda) - \$1000 (Spring 2019)
- USM Community of Practice CTET Grant - \$1000 (Summer 2018)
- USM Title III Mini Grant on Digital Marketing and Business Analytics Students Competition, coauthored by Professors (Xu, Heiser, Suleiman & Griffin) - \$1000 (Fall 2017)
- CTET Course Design Grant - \$2000 (Spring 2013)
- Awarded Centre for Technology Enhanced Learning (CTET) Grant on “Enhancing Collaborative Learning Using Smart Board 885ix Interactive Whiteboard System”, coauthored by Professors Dean and Mittal, USM, \$5462 (2011)
- (CTET) Emerging Technology Grant to develop quantitative support services using online tutoring, USM, \$5000, Unfunded (2009)
- Awarded “Teaching for Sustainability Grant”, USM, \$500 (2008)
- Awarded “Provost Summer Writing Seminar”, USM, \$1000 (2007)
- Awarded a CTET Grant to develop an online course on Supply Chain Management (MBA 672), USM, \$2500/Self and \$1000/Department (2007)
- Investigator (Graduate Student) “Impact of CPFR on Supply Chain Performance” funded by Multidisciplinary Research Grant, Logistics and Distribution Institute, University of Louisville, Kentucky, \$10,000 (2003)

### **SERVICE**

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*Service to the School of Business, USM*

- **Member**, Undergraduate Curriculum Committee (Fall 2017 – Present)
- **Chair**, Ad hoc P&T Policy Committee (Spring 2021- present)
- **Chair**, Faculty Senate Rewards Committee (Spring 2021)
- **Member, Beta Gamma Sigma** Induction Committee (Spring 2016 - present)
- **Member**, Accounting Tenure Track **Search Committee** (Spring 2020)
- **Member**, Ad hoc Committee, **New Management Major** (Fall 2019 – Spring 2020)
- **Chair**, Operations and Supply Chain Management Tenure Track search committee (Fall 2018)
  
- **Co-Chair & Faculty Advisor** for Business Analytics & Digital Marketing Student Competition & Summit (Fall 2017 – Spring 2020)
- **Faculty, Advisor**, Operations, Supply Chain Management & Analytics (OSA) student club (Fall 2020 – present)
- **Faculty Representative**, SAP University Alliance Associate Membership (Fall 2019 – Present).
- **Faculty Advisor**, Student Poster Presentation at Thinking Matters (Spring 2018, Spring 2019, Spring 2020, Spring 2021)
- **Member**, Faculty Senate Rewards Committee (Spring 2020)
- **Member**, Accounting Tenure Track **Search Committee** (Fall 2017)
- **Member**, Undergraduate Curriculum Review Task Force (Fall 2013 – Spring 2015)
- **Member**, Undergraduate Business **Curriculum Committee** (Fall 2010 – Spring 2017)
- **Partnered with Department of Technology Management** in developing curriculum of BS to MBA 3-2 program (Fall 2011 – Fall 2012)
- Adjunct Faculty Coordinator for Business Statistics (Fall 2007 – Spring 2015)
- Adjunct Faculty Coordinator for OM (Fall 2007 – Present)
- Volunteer, Prospective Students (March 28 – April 1st, 2016)
- Faculty Mentor, Adjunct Faculty Teaching Quantitative Business Courses (Applied Business Analysis & Operations Management) (Fall 06 – Present)
- Member, Business Administration Program (Fall 2006 – Present)
- Member, Quantitative Curriculum Committee (Fall 2006 – Present)
- Member, MBA Curriculum Committee (Fall 2006 – Present)
- Member, Graduate Faculty (Fall 2006 – present)
- Volunteer, New Student Orientation (January 6th, 2011; May 28th, 2010)
- Member, MS/OM Tenure Track Faculty Search Committee (Fall 2010)
- Member, MS/OM Fixed Length Faculty Search Committee (Spring 2010)
- Member, Ad hoc Restructuring Committee for Discussion with College of Nursing and Health Professions (2009 – 2010)
- Volunteer, New Student Orientation (July 13th, 2009; January 7th, 2009)
- Volunteer, Prospective Students Week (April 13 – 25th, 2007)
- Member, Student Success Task Force (Summer 2007 – Spring 2008)

*College and University Service, USM*

- **Co-Chair**, Hiring and Human Relations Committee (Fall 2020 – Present)
- **Member**, Steering Committee – Intercultural Diversity & Equity Council (**IDEC**) – Fall 2020 – Present
- **Member**, New American Credentialing Committee (President Office)
- **Member**, Industrial Engineering Major Curriculum Development
- **Chair**, Associate Vice President Equity, Inclusion, and Community Impact (**AVPEICI**) Search Committee (Spring 2020)
- **Member, Leadership Team**, Faculty & Staff of Color Association (**FSOCA**), USM (Summer 2020 – Present)
- Member, FSOCA (Summer 2020 – Present)
  
- **Member**, ITAC (Information Technology Advisory Council) Committee - (Fall 2016 – Present)
- **Faculty Senator** – SB representative (Fall 2017 – Spring 2019)
- **Member**, IDAC (Intercultural & Diversity Advisory Council) Committee (Spring 2018 – Present)
- **Member**, **Hiring & Human Relations** Sub Committee of IDAC (Fall 2015 – Present)
- **Member**, **USM Diversity Council** (Spring 2016 – Fall 2017)
- **Member**, **Graduate Council** (Fall 2014 – Spring 2017)
- Member, CMHS Competencies Committee (Fall 2013)
- Member, CMHS Diversity Committee (Fall 2012 – Spring 2015)
- Member, International Advisory Committee (Fall 2012 – Fall 2013)
- Member, CMHS Sounding Board, Faculty Development (Fall 2012 – Fall 2013)
- Member, Authors Wall Committee (Spring 2011 – Spring 2013)
- Mentor, Incoming Undergraduate Student (Fall 2009)
- Member, University Wide Scholarships and Awards Committee (Spring 2009 – Spring 2010)
- **Member, SB Representative on Russell Chair and Trustee Professor** Selection Committee (Spring 2009 – Spring 2010)
- Member, Community of Practice for Online Course Development (Spring 2007- Present)
- **Member, Faculty Senate Research Committee** (Fall 2006 – Spring 2012)
- Member, Informal University Wide Statistics Group (Fall 2006 – Spring 2009)

*External Business and Community Service*

- Provide guidance to MBA students to conduct Applied Supply Chain Research Projects in the local business community including Hannaford, US Cellular Corp, LL Bean, Shipyard Brewing Company, Fetch Dog, Fairchild Semiconductor and Green Coffee (Spring 2008 – Present)
- Advisory Board Member, Math & Science Mentoring Alliance (October 2009 – Fall 2013)
- Partnered with National Association for the Advancement of Colored People (NAACP) for prayer during the Human Rights Day Program at USM (December 8th, 2009)

- Shared my story as a recent immigrant of Maine (Published as Chapter 4 of the book titled “New Mainers: Portraits of Our Immigrant Neighbors”, Tilbury House Publishers, Gardiner, Maine (2009) by the authors (Jan Pieter van Voorst van Beest and Pat Nyhan)
- Statistical Analysis Project for IDEXX to investigate whether there is a statistically significant difference in the proportions of positives between regions for various diseases (2008)
- Statistical Analysis Project for IDEXX to determine performance of the SNAP® Feline TripleTM test kit compared to the current test methods (2007)
- Volunteer Member, Indian Association of Maine (2006 – Present)
- Presentation on “Comparative Religions” in Southwestern College, KS (2006)
- Service to the Profession
- Member, Editorial Review Board, International Journal of Business Intelligence and Systems Engineering (IJBISE) (2014 – Present)
- Member, Editorial Review Board, International Journal of Information Systems and Supply Chain Management (IJSSCM) (2011 - Present)
- Reviewer, International Journal of Production Research (IJPR) (2011 – Present)
- Reviewer, (IJSSCM) (2011 – Present)
- Reviewer, DSI Innovative Education Track (2011)
- Reviewer, Journal of Global Information Technology (2010 – Present)
- Member, Editorial Board, Global Digital Business Association, Inc. (April 2008 – Present)
- Foreign Examiner for Ph.D. Thesis Valuation for a student at Visveswaraya Technological University, Bangalore, Karnataka, India (2009).
- Chair, Technical Session titled “SCM Practices” at International Conference on Logistics and Supply Chain Management (ILSCM), Coimbatore, India (August 2008)
- Participant in Panel Discussion at International Conference on Logistics and Supply Chain Management (ILSCM), Coimbatore, India (August 8th, 2008)
- Foreign Examiner for Ph.D. Thesis Valuation for student at Department of Mechanical Engineering, S. J. College of Engineering, Mysore, Karnataka, India (2007)
- Member, Library Promotion Committee, Production and Operation Management Society (POMS) (December 2006 – April 2007)
- Reviewer, Industrial Engineering Research Conference (IERC) Proceedings (2006)

## **AWARDS AND HONORS**

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- Awarded School of Business Faculty Senate Research Award for Excellence in Service (2019)
- Member of Beta Gamma Sigma (2015 - Present)
- Awarded School of Business Faculty Senate Research Award for Excellence in Intellectual Contributions (2011)
- Awarded School of Business Outstanding Professor of the Year Award for Teaching by Dean List of Business Students (2010)
- Nominated for School of Business Faculty Senate Research Award (2010)
- Nominated for School of Business Faculty Senate Teaching Award (2009)

- Member of Phi Kappa Phi Honors Society (2005)
- Second Prize for Best Exhibit, Engineers Day, Department of Industrial Engineering, University of Louisville (2003)
- Runners Position, College Basketball Competition, R. V. College of Engineering, Bangalore, India (1993)
- First Position, Scholarship Award, High School, New Delhi, India (1987)
- First Position, Mathematics Olympiad, High School, New Delhi, India (1987)
- First Prize, Camlin Students Mathematics Talent Contest, Delhi, India (1986)

## PROFESSIONAL AFFILIATIONS

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- Member, Production and Operations Management Society (POMS)
- Member, Decision Sciences
- Member, System Dynamics Society
- Member, Institute of Operations Research and Management Science (INFORMS)
- President and Founder of INFORMS Student Chapter, University of Louisville (2003-04)

## INDUSTRY EXPERIENCE

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2004 Graduate Intern, Lean Quest (Lean Management Consulting Company),  
Huntington Beach, California

Responsible for development of simulation models and manuals to help the consultants in the lean management training workshops

### Accomplishments:

- Developed inventory management simulation models based on lean and traditional concepts
- Developed Instruction Manuals for Lean Consultants

1999-2000 Sr. Engineer, Hindalco Industries Ltd. (Largest Aluminum Company in Asia and part of \$41 Billion Aditya Birla Group), New Delhi, India

Responsible for product development, sales and distribution of Alloy Wheel Rims All over India, reporting to Sr. Vice President (Marketing)

### Accomplishments:

- Developed and implemented sales and distribution strategies in after-market, original equipment manufacturers (G.M, Daimler Benz, Hyundai, Honda), and export market
- Developed a customized sales distribution system with I.T support  
Helped company achieve 20% market share in the first year of commercial production



1995-1998 Assistant Manager, Escorts Mahle Ltd. (Automotive Engine Components), part of \$4.6 Billion Escorts Group, New Delhi, India

Responsible for providing product support to Original Equipment Manufacturers, After Market, Railways and State Transport

Accomplishments:

- Improved zonal market share by 15 – 20%
- Reduced warranty complaints from 1.2% to 0.5% in railway division and 2.0% to 0.6% in after-market
- Coordinated with the manufacturing plant in new product developments to improve the product performance by 5-10%

1994-1995 Graduate Engineer Trainee, Q. H. Talbros Ltd (Automotive Suspension Components), Gurgaon, India

Responsible for quality assurance testing and final inspection

Accomplishments:

- Initiated control chart techniques and other statistical quality control measures at worker and supervisor levels
- Improved product quality of incoming raw material through
- technical support and helped the company in achieving ISO 9001 certification

*Other Industry Projects*

- Inventory Management System for a sports goods company using Oracle as back-end and Developer 6.0 as front-end (2001)
- ‘Assessment of demand for Heat Exchangers’ in India (2000)
- ‘Design and Development of Robotic End-Effectors’ at Indian Space Research Organization (I.S.R.O), Bangalore (1994)

1990 -1994 Director, Business Development, Kwaliti Spares (India)

**PROFESSIONAL DEVELOPMENT**

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- Workshop on Best Practices for Diversity, Equity, and Inclusion in Research (Spring 2021)
- Workshop on Best Practices to Promote Racial and Social Equity in the Workplace (Fall 2020)
- SAP University Alliances Year End Event (Fall 2020)
- Workshop on the Challenges of Recruiting and Retaining Diverse Faculty and Administrators (Fall 2020)
- Brightspace Training Workshop (Summer 2020)

- Artificial Intelligence: Implications for Business Strategy, online course from MIT (Spring 2020)
- Maine Center Ventures Steering Committee Presentation (December 2018, Feb 2019)
- USM Advising Workshop (October 27th, 2017)
- Open Data Science Workshop (May 4th – May 5th, 2017)
- Community Inclusion Training (April 21st, 2017)
- Data Analytics Workshop, UNC-Chapel Hill (June 20th – June 22nd, 2016)
- One Week Workshop on Structural Equation Modeling, University of Connecticut, Storrs (July 16th – July 20th, 2012)
- Three days Institute on Collaborative Teaching, Research and General Education organized by the Provost Office, USM (May 23rd – May 25th, 2011)
- Faculty Technology Showcase hosted by Center for Teaching Enhanced Learning (CTEL), USM, November 12th, 2010)
- Introduction to the Quality Matters Rubric Workshop (CTEL, USM, August 18th, 2010)
- Focus on Innovation Convocation (USM, February 11th & 12th, 2010)
- First Regional Sloan-C Conference (USM, October 30th, 2009)
- Using Technology in Teaching and Learning (4th Annual Showcase, May 8th, 2009)
- Two days Teaching for Sustainability Conference (USM, October 24th & 25th, 2008)
- Community of Practice and Illuminate Workshop (CTEL, USM, November 30th, 2007)
- Teaching Online: A Short Course for New Online Faculty (CTEL, USM, Fall 2007)
- Academic Advising's Integral Role in the Academic Success and Persistence of Students Webinar (USM, September 2007)
- Two Weeks Provost Writing Seminar (USM, Summer 2007)
- POMS Emerging Scholar Program (Dallas, Texas, May 2007)
- Five Weeks Online Development Course on Blackboard (CTEL, USM, Spring 2007)
- Assessment of Learning (AOL) Conference (SB, USM, March 16th, 2007)
- Clicking In: A Way to Improve Class Interaction (CTEL, USM, October 30th, 2006)
- Pedagogies of Diversity, Diversity of Pedagogy: Diversity and Scholarship at the Turn of the 21st Century (University of Maine System Faculty and Staff Workshop, USM, November 3rd, 2006)
- Teaching Effectiveness Colloquium (INFORMS, San Francisco, CA, 2005)
- SAP Training (40 hrs) by SAP University Alliance Program at (California State University, Chico, CA, 2005)

## IT AND ANALYTICALSKILLS

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Operating Systems	Mac, Windows, Novell Netware
Databases	Oracle, MS Access
Programming languages	R, SQL, PL/SQL, C
Front-ends	Developer (Forms 1 & 2), Reports, Java Developer
Simulation	Powersim, Arena
Other Programs	POM, ExcelOM, Minitab, SPSS, MPL, GIS (Arc View), AMOS

## CURRICULUM VITAE

### Muhammad El-Taha

#### Home Address

6 Juniper Ln  
Falmouth, ME 04105

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#### Campus Address

Department of Mathematics & Statistics  
University of Southern Maine  
Portland, ME 04104-9300

O: (207)780-4564

### Professional Experience

#### Academic

Year(s)	Institutions	Positions
1998-	University of Southern Maine	Professor
1993-98	University of Southern Maine	Associate Professor
1987-93	University of Southern Maine	Assistant Professor
1999-00	American University of Beirut	Visiting Professor
	Engineering Management Graduate Program	
Spring 94	University of North Carolina, Chapel Hill	Visiting Scholar Department of Operations Research
Summer 92	Institut National de la Recherche Scientifique-Telecommunications (INRS), Montreal, Canada	Visiting Scholar
1991-	Department of Computer Science University of Southern Maine	Adjunct Professor
1982-87	North Carolina State University	Research/Teaching Assistant
1981-82	American University of Beirut	Instructor
1978-80	American University of Beirut	Teaching Assistant

#### Administrative

Year(s)	Institutions	Positions
2016-2018	University of Southern Maine	Director, Graduate Program in Statistics
2012-2013	University of Southern Maine	Chair, Department of Mathematics and Statistics
2010- 2011	University of Southern Maine	Chair, Department of Mathematics and Statistics
2007-2010	University of Southern Maine	Director, Graduate Program in Statistics
2000- 2005	University of Southern Maine	Chair, Department of Mathematics and Statistics

2001-03	University of Southern Maine	Director, Graduate Program in Statistics
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**Non-Academic**

2006-Present	Provided statistical consulting to several companies on health related issues and products. Also provided consulting on call center management to a health care company.	
2000-01	Provided unpaid consulting for Portland citizens to asses the risk to surroundings from blasting at Dragon Concrete Plant.	
1980-82	Statistical Analyst with Arabia Insurance Co.	
1992	Consulting with National Semiconductor on Wafer output rates	
1994	Consulting with National Semiconductor on improving manufacturing processes	
1997/1998	Consulting with Fairchild Semiconductor on inventory control problems	
1987-98	Consulting: several business and industry projects including US Department of Labor	

**Educational Background**

<b>Years</b>	<b>Institutions</b>	<b>Degrees Awarded</b>
1987	North Carolina State University, ( Operation Research)	Ph.D.
1980	American University of Beirut ( Statistics)	M.S.
1978	Haigazian College, Beirut ( Mathematics)	B.S.

**Sample Consulting Projects**

- Socioeconomic Status as a Determinant of Anti-Tumor Necrosis Factor Therapy in Patients with Rheumatoid Arthritis (RA) in the Consortium of Rheumatology Researchers of North America (CORRONA) Database
- Switching and Drug Survival Analysis of Infliximab and Other Biologics among RA patients
- Analysis of NARCOTIC among Crohns patients based on TREAT (Therapy, Resource, Evaluation,and Assessment Tool) Registry Database.
- Statistical Analysis on Use of Any-TNFs Based on RA Patient Record Database

- TNF alpha Antagonist Pattern Use in RA-Assessed on Yearly Basis since the Registry's Inception.
- Association of Biologics and Resource Utilization of RA patients Based on CORRONA database.
- Concomitant Medications Utilization among RA Patients Based on CORRONA database.
- The CORRONA Registry's Representation of Rheumatoid Arthritis by Race.
- Optimal staffing of a call center for a national Co.
- Statistical analysis of compliance of Diabetic patients

Several of these consulting projects resulted in abstracts and Posters in ACR 2006 and Euler 2007 conferences.

### **Teaching Experience**

**Graduate Level:** Statistics for Business, Queueing Networks, Computer Performance Modeling, System Simulation, Stochastic Processes, Dynamic Programming, Deterministic Modeling in Operations Research, Stochastic Modeling in Operations Research.

**Undergraduate Level:** Business Analytics, Quantitative Business Analysis, Management Science, Mathematical Modeling, Stochastic Processes, Simulation, Numerical Analysis, Linear Programming, Stochastic Modeling in Operations Research, Teaching Seminar, Introduction to Probability and Statistics, Business Statistics, Probability for Business, Calculus, Precalculus

### **Publications (Articles Published/Accepted)**

- El-Taha M, "An Efficient Convolution Method to Compute the Stationary Transition Probabilities of the G/M/c Model and its Variants" 2021 10th IFIP International Conference on Performance Evaluation and Modeling in Wireless and Wired Networks (PEMWN), 2021, pp. 1-6, doi: 10.23919/PEMWN53042.2021.9664677.
- El-Taha M, and Michaud, T "An Efficient Convolution Algorithm for the Non-Markovian Two-Node Cyclic Network" *Applied Mathematical Modelling* (2021) pp.1-13, DOI: 10.1155/2021/5550363.
- El-Taha M, "A Discrete Workload Conservation Law with Applications to Discrete-Time Queueing Systems" *Queueing Models and Service Management*, 2, pp. 124-152, (2019).

- B. Maddah and M. El-Taha “Analysis of a Two-Node Closed Queueing Cyclic Network with One Non-Exponential Node”. *Computers and Industrial Engineering*, 110, pp. 297-316 (2017).
- El-Taha M, “A General Workload Conservation Law with Applications to Queueing Systems” *Queueing Systems: Theory and Applications*, 85 , pp. 361-381, (2017).
- Anandarajah AP, El-Taha M, Peng C , and Ritchlin CT “ The Relationship between Focal and Generalized Bone Loss in Rheumatoid Arthritis” *Current Rheumatology Reviews*, 13, PP. 152-157 (2016).
- El-Taha M, “Asymptotic Time Averages and Frequency Distributions” *International Journal of Stochastic Analysis*, (2016).
- El-Taha M, “Invariance of Workload in Queueing Systems” *Queueing Systems: Theory and Applications*, 83 , pp. 181-192, (2016).
- B. Maddah, and El-Taha M, ”Selective Trunk with Multi-Server Reservation” *Advances in Operations Research*, (2016)
- Clark M, and El-Taha M, “Some Useful Properties of Log-Logistic Random Variables for Health Care Simulations”, *International Journal of Statistics in Medical Research*, 4, pp.79-86(2015).
- El-Taha M, “Sample-Path Analysis of Queues with Batch Arrivals” *Computers and Industrial Engineering*, 70, pp.98-106 (2014).
- El-Taha M, “Theory of Probability, Basics and Fundamentals”, *Encyclopedia of Social Network Analysis and Mining*, Editors: Reda Alhajj, Jon Rokne, Invited Submission. (2014).
- Fisher M, Hochberg M, El-Taha M, Kremer J, Peng C, , Greenberg J “Smoking, Smoking Cessation, and Disease Activity in a Large Cohort of Patients with Rheumatoid Arthritis” *The Journal of Rheumatology*, 39, pp.904-909(2012)
- M. El-Taha, “Sample-Path Analysis of Single-Server Queues with Multiple Vacations”, *ISRN Applied Mathematics*. Published online, (2011).
- Anandarajah AP, El-Taha M, Peng C, Reed G, Greenberg J and Ritchlin CT “ The Association between Focal Erosions and Generalized Bone Loss in Psoriatic Arthritis” *Annals of the Rheumatic Diseases*, 70, pp.1345-1347(2011)

- B. Maddah, L. Moussawi, M. El-Taha, and H. Rida “Dynamic Cruise Ship Revenue Management” *European Journal of Operations research (EJOR)*,207, pp.445-455,(2010)
- B. Maddah, M. El-Taha and R. Abou Tayeh “Optimal allocation of Servers and Processing Time in a Load Balancing System” *Computers and Operations Research*,37, pp.2173-2181(2010)
- M. El-Taha, “PASTA and Related Results”, *Wiley Encyclopedia of Operations Research and Management Science*. Invited, published online, (2010).
- M. El-Taha ”Departure Process in a Mixed Fork-Join Synchronization Network” *Computers and Mathematics with Applications*,57 pp. 1272-1279 (2009)
- M. El-Taha and B. Maddah, “Allocation of Service Time in Multi- server Systems”, *Management Science*,52, pp.623-637(2006)
- M. El-Taha and B. Maddah, “Allocation of Service Time in Multi- server Systems”, *Management Science*, On-line supplement, (2006)
- M. El-Taha and M. Jafar “Characterization of the Departure Process in a Closed Fork-Join Synchronization Network” *Applied Mathematics and Computation*,181, pp. 214-219 (2006)
- M. El-Taha and J. Heath, “Queueing Network Models of Credit-Based Flow Control”, *Computers and Mathematics with Applications*, 50, pp.393-398 (2005)
- El-Haber and El-Taha, “Dynamic Two-Leg Airline Seat Inventory Control with Overbooking, Cancellations & No-Shows”, *Journal of Revenue & Pricing Management*3, pp. 143-170 (2004)
- M. El-Taha, “Allocation of Service Time in a Two server System”, *Computers and Operations Research*, 30, pp. 683-693 (2003)
- M. El-Taha, “A Sample-Path Condition for the Uniform Asymptotic Distribution of Clearing Processes”, *Optimization*,51,6,pp. 965-975 (2002)
- M. Abou Najm, M. El-Fadel, M. El-Taha, G. Ayoub, and F. Al-Awar, ” An Optimization Model for Regional Integrated Solid Waste Management I. Model Formulation” *Waste Management and Research*, 20, pp.37-46 (2002)

- M. Abou Najm, M. El-Fadel, G. Ayoub, M. El-Taha, and F. Al-Awar, "An Optimization Model for Regional Integrated Solid Waste Management II. Model Application and Sensitivity Analysis" *Waste Management and Research*, 20, pp.46-54 (2002)
- M. El-Taha and B. Maddah, "Joint Probability Distribution of Multiple Selective Trunk Reservation Systems", Proceeding of the 6th World Multiconference on Systemics, Cybernetics and Informatics: Mobile/Wireless Computing and Communications Systems, Vol IV, pp. 320-324, 2002.
- M. El-Taha, and S. Stidham Jr., "Filtration of *ASTA*: A Weak Convergence Approach", *Journal of Statistical Planning and Inference*, 100, pp 171-183 (2002)
- F. Mrad, E. Khayat, M. El-Taha, and K. Kelly, "PC-Based Instrumentation: Statistical System Error Calculator" IQM2001 Symposium: Intelligent Quality Management and Metrology, pp.940-948 (2001)
- M. El-Taha, and J. Heath, "Traffic Overflow In Loss Systems with Selective Trunk Reservation", *Performance Evaluation*, 41, 4, pp 295-306 (2000)
- M. El-Taha, "Parameter Estimation in a Right-Truncated Gamma Distribution", *American Statistical Association, 1998 Proceedings of the Statistical Computing Section*, pp 183-188, (1999)
- D. Clark, and M. El-Taha, "Generation of Correlated Logistic-Normal Random Variates for Medical Decision Trees", *Methods of Information in Medicine*, 37, pp 235-238, (1998)
- M. El-Taha, Stidham Jr., and R. Anand, "Sample-Path Insensitivity of Symmetric Queues in Discrete-Time" *Nonlinear Analysis, Theory, Methods and Applications* (Proceedings of the Second World Congress of Nonlinear Analysts, Athens,) 30:1099-1110, (1997)
- M. El-Taha, and J. Heath, "Overflow Traffic in Closed Queueing Models", *Stochastic Models*, 12, pp 493-506 (1996)
- M. El-Taha, "Pathwise Rate-Stability for Input-Output Processes", *Queueing Systems*, 22, pp 47-63 (1996)
- M. El-Taha, and S. Stidham Jr., "Sample-Path Stability Conditions for Multiserver Input-Output Processes", *Journal of Applied Mathematics and Stochastic Analysis*, 7, pp 437-456 (1994)



- S. Stidham Jr., and M. El-Taha, "Sample-Path Techniques in Queueing Theory ", *Advances in Queueing* , pp 119-166 (1994), editor: Dshalalow
- M. El-Taha, and S. Stidham Jr., "Sample-Path Analysis of Stochastic Discrete-Event Dynamic Systems", *Discrete Event Dynamic Systems*, 3, pp 325-246 (1993)
- M. El-Taha, "MVU Estimation in a Shifted Gamma Distribution with Shape Parameter a Known Integer", *Communication in Statistics: Simulation and Computation*, 22 , pp 831-843 (1993)
- S. Stidham Jr., and M. El-Taha, "A Note on Sample-Path Stability Conditions for Input-Output Processes", *Operations Research Letters* 14, pp 1-7 (1993)
- M. El-Taha, "On Conditional ASTA: A Sample-Path Approach", *Stochastic Models*, 8, pp 157-177, (1992)
- M. El-Taha, and S. Stidham Jr., "Deterministic Analysis of Queueing Systems with Heterogeneous Servers," *Theoretical Computer Science*, 106, pp 243-264, (1992)
- M. El-Taha, and S. Stidham Jr., "A Filtered ASTA Property", *Queueing Systems*, 11, pp 211-222, (1992)
- M. El-Taha, and W. Evans, "A New Estimation Procedure for a Right-Truncated Exponential Distribution", *The 23rd Annual Pittsburgh Conference on Modeling and Simulation*, 23, pp 427-434 (1992)
- M. El-Taha, J. Heath, and W. Evans, "Approximate Analysis of Multiserver Queueing Models with Ranked Servers," In *Modeling and Simulation*, 22, eds. W. Vogt and M. Mickle, pp 607-614. Pittsburgh (1991)
- M. El-Taha, and S. Stidham Jr., "Sample-Path Analysis of Discrete-Event Dynamic Systems", *The 30th IEEE Conference on Decision and Control, Conference proceedings*, (1991)
- M. El-Taha, and J. Heath, "A Model of Channel Allocation in Multi-channel Local Networks," *Computers and Operations Research*, 18, pp 297-306, (1991)
- S. Stidham Jr., and M. El-Taha, "Sample-Path Analysis of Processes with Imbedded Point Processes," *Queueing Systems*, 5, pp 131-166, (1989)

### **Publications (Published Abstracts in Refereed Proceedings)**

These publications are joint work with researchers from CORRONA, CENTOCOR and Medical Schools in New York and Massachusetts.

- Anandarajah AP, Greenberg J, **El-Taha M**, Peng C, Reed G, Greenberg J, Ritchlin CT. The relationship between erosions and osteoporosis in patients with psoriatic arthritis. *Arthritis and Rheumatism*. *Annals of rheumatic diseases* 2008;67:101
- Anandarajah AP, Greenberg J, **El-Taha M**, Reed G, Peng C, Ritchlin CT. The relationship between erosions and osteoporosis in patients with psoriatic arthritis. *Arthritis and Rheumatism* 2008;58(9):S366-S367.
- Fisher MC, **El-Taha M**, Kremer JM, Peng C, Greenberg J. Smoking cessation and improvement of RA disease activity. *Arthritis and Rheumatism* 2008;58(9):S610-S610.
- Anandarajah AP, Greenberg J, **El-Taha M**, Reed G, Peng C, Ritchlin CT. The relationship between erosions and osteoporosis in patients with psoriatic arthritis. *Arthritis and Rheumatism* 2008;58(9):S366-S367.
- Dabbous O, Kremer J, Rambharose J, **El-Taha M**, Reed G, Tang B, et al. Infliximab, etanercept, and adalimumab switchinu in patients with rheumatoid arthritis in the consortium of rheumatology researchers of North America (Corrona) database. *Annals of the Rheumatic Diseases* 2007;66:167-167.
- Dabbous O, Kremer J, **El-Taha M**, Reed G, Tang B, Thompson H, et al. Socioeconomic status as a determinant of Anti-TNF alpha therapy for rheumatoid arthritis patients: CORRONA database. *Arthritis and Rheumatism* 2006;54(9):S61-S62.
- Dabbous O, Kremer J, **El-Taha M**, Reed G, Tang B, Arjunji R, et al. Infliximab, etanercept and adalimumab switching in patients with rheumatoid arthritis in the consortium of rheumatology researchers of North America (CORRONA) database. *Arthritis and Rheumatism* 2006;54(9):S705-S705.
- Dabbous O, Kremer J, **El-Taha M**, Reed G, Tang B, Thompson H, et al. Socioeconomic status as a determinant of Anti-TNF alpha therapy for rheumatoid arthritis patients: CORRONA database. *Arthritis and Rheumatism* 2006;54(9):S61-S62.

### **Technical Reports on Research/Consulting Projects.**

- Socioeconomic status as a determinant of anti-tumor necrosis factor therapy in patients with rheumatoid arthritis (RA) in the Consortium of Rheumatology Researchers of North America (CORRONA) Database. (with Cheng Peng), 2006.
- Analysis on use of NARCOTIC among Crohn's patients based on TREAT (Therapy, Resource, Evaluation, and Assessment Tool). (with Cheng Peng) 2006
- Switching and drug survival analysis of use Infliximab and other biologics among RA patients. (with Cheng Peng) 2006.
- Statistical Analysis on use of any TNF inhibitors based on RA Patient Record Database. (with Cheng Peng) 2006
- Disease activity among RA patients who have received TNF inhibitors and discontinued therapy. (with Cheng Peng) 2007.
- Statistical Analysis of the switchers problem Remicade Switchers Analysis for ACR07 (with Cheng Peng) 2007.
- TNF alpha antagonist pattern use in RA-assessed on yearly basis since the registry's inception. (with Cheng Peng), 2007
- Association of biologics and resource utilization of RA patients based on CORRONA database. (with Cheng Peng), 2007
- Concomitant medication utilization among RA patients based on CORRONA database. (with Cheng Peng), 2007
- The CORRONA registry's representation of rheumatoid arthritis by race. (with Cheng Peng), 2007
- The Effect of Smoking Cessation on RA Outcomes (with Cheng Peng). 2008.
- The Relationship between Erosions and Osteoporosis in Patients with Psoriatic Arthritis (with Cheng Peng). 2008.

## Books

- M. El-Taha, and S. Stidham Jr., "Sample-Path Analysis of Queueing Systems", Kluwer Academic Publishers, Boston, (1999)

The book has been awarded the “1999 Best Publication Award” by the Applied Probability section of *INFORMS* (the Institute of Operations Research and Management Science). The award recognizes the most outstanding contribution to the field of Applied Probability.

### Reviews that Appeared in Mathematical Reviews

- A review of “ An Infinite-Server System with Levy Shot-Noise Modulations: Moments and Asymptotics” by M. Saxena, O.J. Boxma and M. Mandjes (2021)
- A review of “A queueing system with vacations after a random amount of work” by Ivo Adan, Ono Boxma, Dieter Claeys, and Offer Kella (2019)
- A review of “Personalized queues: the customer view, via a fluid model of serving least-patient first” by Avishai Mandelbaum and Petar Momcilovic (2018)
- A review of “MAP/M/c and M/PH/c queues with constant impatience” by Kenichi Kawanishi and Tetsuya Takine (2016)
- A review of “The Tail Behavior of A Longest-Queue-Served-First Queueing System: A Random Walk in the Half Plane” by Wenzhe Ye, Hui Li, and Yiqiang Zhao. (2015).
- A review of “Random-Order-of-Service for Heterogeneous Customers: Waiting Time Analysis” by W. Rogiest, K. Laevens, J. Walraevens, and H. Bruneel. (2015).
- A review of “A Batch Arrival Queue with Second Optional Service and Reneging During Vacation Periods” by YMonita Baruah, Kailash C Madan, and Tillal Eldabi. (2014).
- A review of “Queue Size Distribution and Capacity Optimum Design for N-policy  $\text{Geo}^{\lambda_1, \lambda_2, \lambda_3}/G/1$  with Setup Times and Variable Input Rate” by Yingyuan Wei, Miaomiao Yu, Yinghui Tang, and Jianxiong Gu. (2014).
- A review of “Reflecting Brownian Motion in Two Dimensions: Exact Asymptotics For the Stationary Distribution” by J.G. Dai and Masakiyo Miyazawa. (2013)
- A review of “The single server vacation queueing model with geometric abandonment” by Spiros Dimou, Antonis Economou, Demetrios Fakinos (2012)
- A review of “Continuity of the  $M/G/c$  queue” by Lothar Breuer (2009)

- A review of “A fluid model with upward jumps at the boundary” by Vidyadhar Kulkarni and Keqi Yan (2008)
- A review of “ Structural interpretation and derivation of necessary and sufficient conditions for delay moments in FIFO multiserver queues” by Alan Scheller-Wolf and Rein Vesilo (2007)
- A review of “Asymptotic Analysis of Complex, Markov-Modulated Computer and Communication Systems” by J. Sztrik, Mathematical Reviews (2004)
- A review of “Analysis and Computation of the Joint Queue Length Distribution in a *FIFO* Single-Server Queue with Multiple Batch Markovian Arrival Streams”, by H. Masuyama and T. Takine, Mathematical Reviews (2004)
- A review of “Sojourn times in a processor sharing queue with service interruptions, by R. Nunez-Queija” Mathematical Reviews (2001)
- A review of “Tail probabilities of low-priority waiting times and queue lengths in *MAP/GI/1* queues, by Vijay Subramanian and R. Srikant” Mathematical Reviews (2001)
- A review of “On the number of refusals in a busy period, by Perkoz, Erol A. ” Mathematical Reviews (1999)
- A review of “The superposition of alternating on-off flows and a fluid model, by Palmowski, Zbigniew and Rolski, Tomasz” Mathematical Reviews (1998)
- A review of “On the Stability of Greedy Polling Systems with General Service Policies, by S. Foss and G. Last” Mathematical Reviews (1998)
- A review of “Scheduling in a multi-class series of queues with deterministic service times, by Hariharan, Moustafa and Stidham” Mathematical Reviews (1998)
- A review of “On Pathwise Analysis and Existence of Empirical Distributions for *G/G/1* Queues, by F. M. Guillemin and R.R. Mazumdar” Mathematical Reviews (1997)
- A review of “A Fluid Limit Model Criterion for Instability of Multiclass Queueing Networks, by Dai, J.G. ”. Mathematical Reviews (1997)
- A review of “ Estimation in Systems of *M/G/C/C* Queues, by Huang, M.L. and Brill, P.H.”. Mathematical Reviews (1996)

- A review of “Queue lengths in the  $GI^X/M^R/\infty$  service systems, by Liu, L. Kashyap, B.R.K. and Templeton, J.G.C. ”. Mathematical Reviews (1996)
- A review of “Development and Justification of the Power-Series, by Hout, W. and Blanc, H. ”. Mathematical Reviews (1995)

### Invited Presentations

- Waiting in Lines: a non mathematical talk *USM SOUTHWORTH PLANETARIUM SCIENCE LECTURE SERIES*. January 15, 2015.
- Statistics in Health Care. This a talk given to a group of medical Doctors and Nurses at the *Pulmonary and Critical Care center* , Central Maine Medical center, Lewiston (2008)
- Allocation of Processing Time in a Multi-Channel Load balancing Systems, USM seminar series, Spring 2007.
- Waiting in Lines *Department of Mathematics and Statistics Colloquium, University of Southern Maine*(2000)
- Topics in Queueing *Engineering Management Program, American University of Beirut*(2000)
- Filtration of *ASTA: A Weak Convergence Approach*”, *Center for Advanced Mathematical Studies, American University of Beirut* (2000)
- Traffic Overflow In Loss Systems with Selective Trunk Reservation, *Department of Mathematics and Statistics, University of Maine at Orono* (1997)
- Fluid Versions of Little’s Formula and Extensions, *Department of Mathematics and Statistics and Department of Electrical Engineering, University of Massachusetts at Amherst* (1996)
- Sample-Path Stability Conditions for Multiserver Input-Output Processes, *Department of Operations Research, University of North Carolina, Chapel Hill* (1994)
- Sample-Path Analysis of Queues, (Five lectures seminar,) *Department of Operations Research, University of North Carolina, Chapel Hill* (1994)
- Sample-Path Analysis of Stochastic Discrete-Event Dynamic Systems, *Systems Research Center, University of Maryland*, (1991)

- On Sample-Path Analysis of Queues, *Department of Mathematics, AT&T Bell Labs*, (1989)
- Performance Analysis of Multichannel Local Area Networks, *Department of Performance Analysis, AT&T Bell Labs*, (1989)

### Selected Conference Presentations

- An Efficient Convolution Method to Compute the Stationary Transition Probabilities of the G/M/c Model and its Variants; The 10 IFIP/IEEE International Conference on Performance Evaluation and Modeling in Wired and Wireless Networks (PEMWN); November 23-25, 2021; Waterloo, Ontario, Canada Conference was held online.
- An Efficient Algorithm for Non-Markovian Two-Node Cyclic Network. *The Institute of Operations Research and Management Science (INFORMS) Meeting*, November 4-7, 2018, Phoenix, AZ.
- A General Workload Conservation Law with Applications to Queueing Systems. *The Institute of Operations Research and Management Science (INFORMS) Meeting*, November 13-16, 2016, Nashville, TN.
- Invariance of Workload in Multi-Server Systems *The Institute of Operations Research and Management Science (INFORMS) Meeting*, October 6-9, 2013, Minneapolis.
- Sample-Path Analysis of Queues with Batch Arrivals. *The Institute of Operations Research and Management Science (INFORMS) Meeting*, November 13-16, 2011, Charlotte.
- Served as Session Chair in the above conference
- Attended a day long workshop on the MINDSET Project, Charlotte NC, November 2011.
- Organizing committee of a day long summer immersion workshop for MTC. (The committee organized and led the presentations during the day)
- Attended a week-long workshop on starting a mathematics teacher's circle for middle school teachers. Funded by American Mathematical Society. Washington, DC July 25-July 29, 2010.

- “Dynamic Cruise Ship Revenue Management” *The Institute of Operations Research and Management Science (INFORMS) Meeting*, October 24-27, 2009, Santiago. Presentation by co-author
- Allocation of Service Time in Load Balancing stems, *The Institute of Operations Research and Management Science (INFORMS) Meeting*, November 4-7, 2006, Pittsburgh
- Machine Repair with General Repair Time and Spares, *The Institute of Operations Research and Management Science (INFORMS) Meeting*, November 4-7, 2005, San Francisco (Note: paper presented by Co-author)
- Attended First Annual Assessment Conference, *SMCC* , April 16, 2004.
- Joint Probability Distribution of Multiple Selective Trunk Reservation Systems, The 6th World Multiconference on Systemics, Cybernetics and Informatics: Mobile/Wireless Computing and Communications Systems, July 14-18 2002, Orlando, Florida.
- Allocation of Service Time in a Multi-Server Systems, *The Institute of Operations Research and Management Science (INFORMS) Meeting*, November 4-7, 2001, Miami Beach.
- Allocation of Service Time in a Two-Server System, *The Institute of Operations Research and Management Science (INFORMS) Meeting*, May 1-4, 1999, Cincinnati.
- Fluid Versions of Little’s Formula and Extensions, *The Institute of Operations Research and Management Science (INFORMS) Meeting*, April 26-29, 1998, Montreal, Canada.
- Filtration of *ASTA*: a Weak Convergence Approach. International Conference on Combinatorics, Information Theory and Statistics, July 18-20, 1997 (USM)
- Sample-Path Analysis of Symmetric Queues in Discrete-Time. World Congress of Nonlinear Analysts (WCNA-96), Athens, Greece (1996)
- A New Concept of Pathwise Stability Conditions for Multiserver Input-Output Processes, *INFORMS National Conference*, Los Angeles, (1995)



- Overflow Traffic in Closed Queueing Models, Fourth International Conference on Advances in *Communications and Control: Telecommunications/ Signal Processing*, Greece, (1993)
- Sample-Path Analysis of Two Symmetric Queues, *Second ORSA Telecommunications Conference*, Florida, (1992)
- Approximate Analysis of Multi-server Queueing Models with Ranked Servers, *The 22nd Annual Pittsburgh Conference on Modeling and Simulation* (1991)
- Minimum Variance Unbiased Estimation in the Truncated Gamma Distribution *ORSA/ TIMS National Conference* , Philadelphia, (1990)
- A Queueing Model for Multichannel Communications Networks, *ORSA/TIMSNational Conference*, Las Vegas, (1990)
- Time Averages and Asymptotic Distributions, *ORSA/TIMS National Conference*, St. Louis, (1987)

#### Abstracts Presented (and Published) at EULAR or ACR Conferences

-EULAR is The European League Against Rheumatism

-ACR is American College of Rheumatology

- *The Relationship between Erosions and Osteoporosis in Patients with Psoriatic Arthritis.* by Allen Anandarajah, **Muhammad El-Taha**, Cheng Peng, George Reed, Jeffrey Greenberg and Christopher Ritchlin , 2008, Eular.
- Socioeconomic Status as a Determinant of Anti-Tumor Necrosis Factor  $\alpha$  Therapy in Patients with Rheumatoid Arthritis in the Consortium of Rheumatology Researchers of North America (CORRONA) Database Omar Dabbous, MD, MPH; Joel Kremer, MD; **Muhammad El-Taha**, PhD; George Reed, PhD; Boxiong Tang, MD, PhD; Heidi Thompson, MS, MBA; Ramesh Arjunji, PhD; Mirza Rahman, MD, MPH (2006)
- Infliximab and Etanercept Switching in Patients With Psoriatic Arthritis: Findings from the Consortium of Rheumatology Researchers of North America (CORRONA) Database. Mirza Rahman, MD, MPH; Joel Kremer, MD; **Muhammad El-Taha**, PhD; George Reed, PhD; Ramesh Arjunji, PhD; Boxiong Tang, MD, PhD; Heidi Thompson, MS, MBA; Omar Dabbous, MD, MPH (2006)

- Infliximab, Etanercept, and Adalimumab Switching in Patients With Rheumatoid Arthritis in the Consortium of Rheumatology Researchers of North America (CORRONA) Database Omar Dabbous, MD, MPH; Joel Kremer, MD; **Muhammad El-Taha**, PhD; George Reed, PhD; Boxiong Tang, MD, PhD; Ramesh Arjunji, PhD; Heidi Thompson, MS, MBA; Mirza Rahman, MD, MPH (ACR 2006), J.MINER. SOFTWECHS (4/2007)
- Anti-Tumor Necrosis Factor alpha Infliximab, Etanercept, and Adalimumab Switching in Patients With Psoriatic Arthritis. Findings from the Consortium of Rheumatology Researchers of North America (CORRONA) Mirza Rahman, MD, MPH; Ramesh Arjunji, PhD; **Muhammad El-Taha**, PhD, MPA; George Reed, PhD; Boxiong Tang, MD, PhD; Heidi Thompson, MS, MBA; Omar Dabbous, MD, MPH (2006)
- Anti-Tumor Necrosis Factor alpha Infliximab, Etanercept, and Adalimumab Switching in Patients With Rheumatoid Arthritis. Findings from the Consortium of Rheumatology Researchers of North America (CORRONA) Omar Dabbous, MD, MPH; Ramesh Arjunji, PhD; **Muhammad El-Taha**, PhD, MPA; George Reed, PhD; Boxiong Tang, MD, PhD; Heidi Thompson, MS, MBA; Mirza Rahman, MD, MPH (2006)

### Masters Theses Supervised

- An Examination of Computational Methods Related to G/M/c Queueing (2019)
- Exploring Application of Queueing Theory to the Measurement of Biochemical Networks (2005)
- Dynamic Two-Leg Airline Seat Inventory Control with Over-booking, Cancellations, and No-Shows (2000)
- Allocation of Service Time in A Multi-server Queueing system (2000)
- Spares and Parts Inventory for Repairable-Item Systems (2000)
- Optimal Allocation of Service Time in Two-Server Systems, (1996)
- Probabilistic Analysis of Decision Trees with Medical Applications, (1995)
- Numerical Methods for the Performance Evaluation of Communication Networks with Ranked Channels, (1993)

- Stochastic Modeling and Analysis of Evolutionary Neurological Phenomena, (1992)
- Optimal Allocation of Servers in Multichannel queueing Systems with Heterogeneous Servers, (1991)
- Sample-Path Insensitivity of Some Symmetric Queues and Related Results, (1990)
- Queueing Models for the Performance Analysis of Multichannel Local Area Networks with Ranked Servers, (1990)

### Professional Service

- External reviewer of a candidate for tenure at the Olayan School of Business, American University of Beirut, 2020
- External reviewer and evaluator of a candidate for promotion to Associate professor at the American University of Beirut (AUB) Lebanon, 20015.
- On the editorial board of *Queueing Models and Service Management (QMSM)*
- On the editorial board of *The Open Operational Research Journal (TOORJ)*
- On the editorial board of *Open Statistics and Probability Journal (TOSPJ)*
- On the editorial board of *American Journal of Operations Research*
- On the editorial board of *Industrial Engineering and Management*
- On the editorial board of *International Journal of Business Analytics (IJBAN)*.
- External reviewer of a PhD thesis on “Performance Analysis of a Probabilistic Re-Entrant in an Environmental Stress Testing Operation” Multimedia University, (2006)
- External examiner of Masters thesis: *Optimal Control of Queues-Case Illustrated-State of the Art*, Cairo University (2005)
- External reviewer and evaluator of a candidate for promotion to full professor at King Saud University, Saudi Arabia, 2004.
- Member, Global organizing committee of International Federation of Nonlinear Analysts for WCNA-96 conference
- Contributed to a proposal by EPSCOR on acquiring an OC-3 link

- Referee for *Queueing Models and Service Management(QMSM)*
- Referee for *Production and Operations Management*
- Referee for *European Journal of Operational Research*
- Referee for *Annals of Operations Research*
- Referee for *Queueing Systems: Theory and Applications*
- Referee for *Operations Research*
- Referee for *IEEE on Automatic Control*
- Referee for *Computers and Operations Research*
- Referee for *Mathematics and Operations Research*
- Referee for *Journal of Applied Statistical Sciences*
- Referee for *Journal of Statistical Planning and Inference*
- Referee for *Computers and Mathematics with Applications*
- Referee for *Computers and Industrial Engineering*
- Referee for *Applied Mathematics and Applications*
- Referee for *Applied Mathematical Modeling*
- Referee for *Journal of King Saud University Science (JKSUS)*
- Referee for *The Open Operational Research Journal (TOORJ)*
- Referee for *Open Statistics and Probability Journal (tospj)*
- Reviewer for *Mathematical Reviews*
- Organized and chaired a session at the second meeting for the WCNA-96 conference, July 1996, Athens, Greece
- Session Organizer: International Conference on Combinatorics, Information Theory and Statistics, July 18-20, 1997 (USM)
- Organized and chaired sessions at other national and international conferences including *ORSA*, *INFORMS* and Telecommunications

- Invited speakers from MIT, IBM, AT&T, UMO, UNC, Bowdoin College, Maine Medical center, University of Vermont, and University of Massachusetts at Amherst
- Consulting for local firms and companies

### **Community Service**

- Founding member of the Middle Teachers Circle (*MTC*) in Southern Maine. The goals of *MTC* are to engage middle school math teachers in mathematical problem solving and involve them in an ongoing dialogue about math with students, colleagues, and professional mathematicians; to provide guidance and materials to middle school math teachers that will enable them to promote open-ended problem solving as a way of learning, thinking about, and practicing math in their classrooms; and to provide a forum to empower middle school math teachers to implement the mathematical practices in the Common Core State Standards for Mathematics.

### **Special Recognition Awards**

- Faculty Senate Award for Excellence in Scholarship (2017), University of Southern Maine.
- Received *CAS* outstanding Teacher Scholar Award, 2005.
- Awarded (with S. Stidham) the “1999 Best Publication Award” by the Applied Probability section of *INFORMS* (the Institute of Operations Research and Management Science). The award recognizes the most outstanding contribution to the field of Applied Probability.
- Faculty Senate Award for Excellence in Scholarship (1999), University of Southern Maine.
- Faculty Senate Research Grant, University of Southern Maine, 1992
- Matching Fund Grant for Computer Equipment, *Bath Iron Works*, (1991)
- Summer Research Fellowship, University of Southern Maine, 1988
- Outstanding Teaching Assistant Award, North Carolina State University, 1986
- Omega Rho, the International Operations Research Society
- Phi Kappa Phi, honor society

### Membership in Professional Societies

- Institute for Operations Research and the Management Sciences (*INFORMS*)
- Applied Probability Group
- *INFORMS* Telecommunications Technical Section
- World Congress of Nonlinear Analysts (*WCNA*)

### University Service

- Member, Graduate Council, (2016-2018), (2007-2010)
- Member, CAS Graduate Affairs Committee, (2007-2010)
- Member, CAS Professional development committee (2004-2009)
- Organized a workshop on MINITAB for Full time/Part time instructors who teach MAT120, MAT211, and MAT212 to encourage the use of statistical software tools in these courses.(2004)
- Member, committee to review the Core Area D requirement, 2003-2004.This committee is charged with the review and revision of the Core Area D requirement as part of the evaluation of the university general education.
- Provost's Space Task force committee for the new wing of the science building
- Organized a workshop for high school students as part of GEAR UP summer program. June 24, 2003.
- Member, Graduate Council,
- Member, CAS Graduate Affairs Committee, 2001/2002
- Member, Core Council (Fall 2001)
- Member, Substitution and Waiver Committee (Fall 2000-2005, Fall 2010-present)
- Chair, Personnel Committee, (Fall 2000-2005, Fall 2010-present)
- Evaluation joint committee for Professor Allman who holds a joint appointment in Math/Stat and Education (2001-present)

- Designed a new brochure for undergraduate program to advertise the department curriculum.
- Redesigned the graduate program in Statistics and produced a new brochure to advertise the graduate program.
- Provided several services in my capacity as Department chair and graduate Program Director.
- Member, Graduate Committee, 9/1/1988-2000
- Chair, Equipment Committee, 9/1/1994-1999
- Coordinator, Mathematics Department Colloquium 9/1/1996-1999
- Member, Equipment Committee, 9/1/1993-5/31/1994
- Member, Faculty Senate, 1997/1998, 2013/2014 and 2014/2015
- Representative, CAS Committee on Tenure and Promotion 9/1/1993-5/31/96
- Member, Graduate Program in Statistics Evaluation Committee, 9/1/1990 - 5/31/1992
- Member, Graduate Program in Statistics Restructuring Committee, Spring 94
- Member, Search Committee, 9/1/1988 - 5/31/1989, 9/1/1995 - 5/31/1996
- Chair, Textbook Review Committees for several multi section courses including MAT 211, MAT 212, and MAT 120
- Member, Faculty focus group on the three semester calendar, Summer 1989
- Member, Several Masters Theses Committees

University of Southern Maine  
Gorham Academy Building  
Project #6100332 09/19/22  
David Burrows, Project Manager CPPM



Overall view showing portico temporarily supported  
Foundation being excavated



Sill detail @ southeast corner



Sill and wall framing @ south window 1<sup>st</sup> floor  
(Outside corner)



Sill detail under south window





Economy  
Overview



Maine



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## Report Parameters

### 1 State

23      Maine

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### Class of Worker

QCEW Employees, Non-QCEW Employees, and Self-Employed

The information in this report pertains to the chosen geographical area.



## Economy Overview

1,372,247

Population (2021)

Population **grew by 39,899** over the last 5 years and is projected to **grow by 25,125** over the next 5 years.

708,588

Total Regional Employment

Jobs **grew by 10,591** over the last 5 years and are projected to **grow by 7,303** over the next 5 years.

\$59.5K

Median Household Income (2020)

Median household income is **\$5.5K below** the national median household income of \$65.0K.

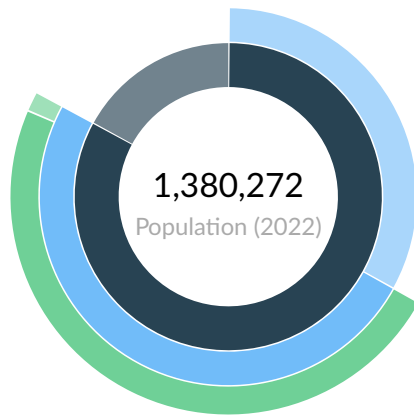
## Takeaways

- As of 2021 the region's population **increased by 3.0%** since 2016, growing by 39,899. Population is expected to **increase by 1.8%** between 2021 and 2026, adding 25,125.
- From 2016 to 2021, jobs **increased by 1.5%** in Maine from 697,997 to **708,588**. This change **fell short of the national growth rate of 1.9% by 0.4%**. As the number of jobs increased, the **labor force participation rate decreased from 61.9% to 59.2% between 2016 and 2021**.
- Concerning educational attainment, **20.8% of Maine residents possess a Bachelor's Degree** (0.3% above the national average), and **10.4% hold an Associate's Degree** (1.6% above the national average).
- The top three industries in 2021 are Restaurants and Other Eating Places, Education and Hospitals (Local Government), and General Medical and Surgical Hospitals.

	Population (2022)	Labor Force (Jun 2022)	Jobs (2021)	Cost of Living	GRP	Imports	Exports
Region	1,380,272	688,424	708,588	116.7	\$76.87B	\$79.81B	\$91.11B



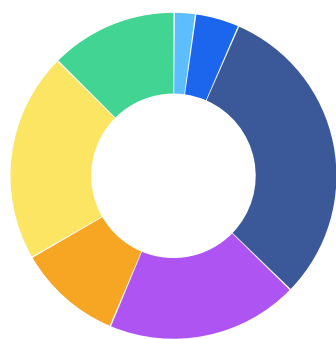
## Jun 2022 Labor Force Breakdown



	Population
16+ Civilian Non-Institutionalized Population	1,143,812
Not in Labor Force (16+)	455,388
Labor Force	688,424
Employed	667,945
Unemployed	20,479
Under 16, Military, and institutionalized Population	236,460

## Educational Attainment

Concerning educational attainment, **20.8% of Maine residents possess a Bachelor's Degree** (0.3% above the national average), and **10.4% hold an Associate's Degree** (1.6% above the national average).

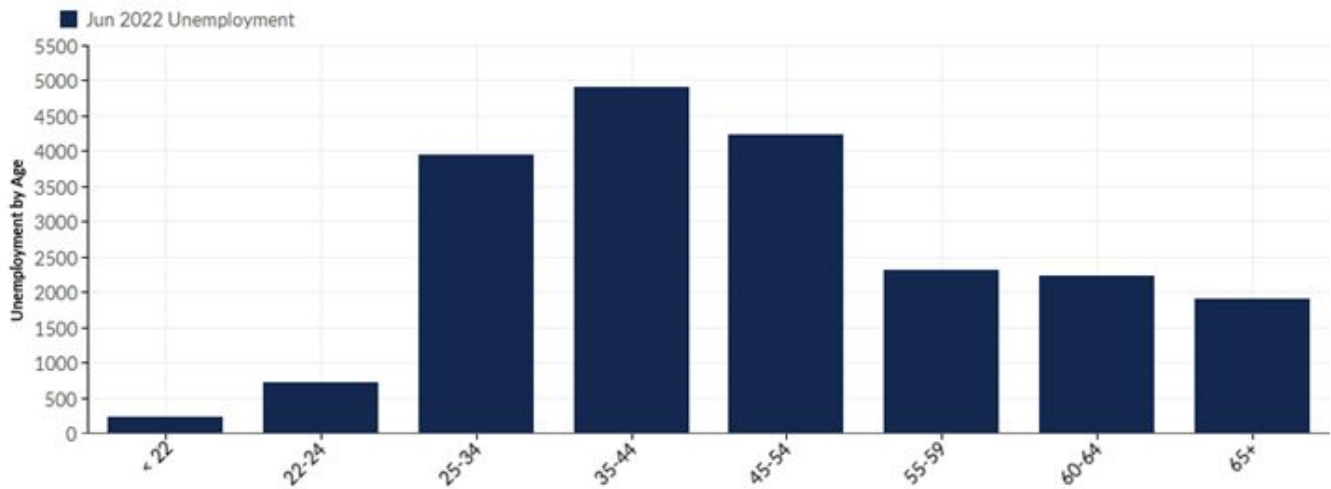


	% of Population	Population
Less Than 9th Grade	2.1%	21,361
9th Grade to 12th Grade	4.4%	44,134
High School Diploma	30.8%	311,643
Some College	19.0%	192,856
Associate's Degree	10.4%	104,927
Bachelor's Degree	20.8%	210,452
Graduate Degree and Higher	12.6%	127,849



## Unemployment by Demographics

### Unemployment by Age



Age	Unemployment (Jun 2022)	% of Unemployed
< 22	229	1.12%
22-24	717	3.50%
25-34	3,951	19.29%
35-44	4,899	23.92%
45-54	4,240	20.70%
55-59	2,317	11.31%
60-64	2,232	10.90%
65+	1,893	9.24%
Total	20,479	100.00%



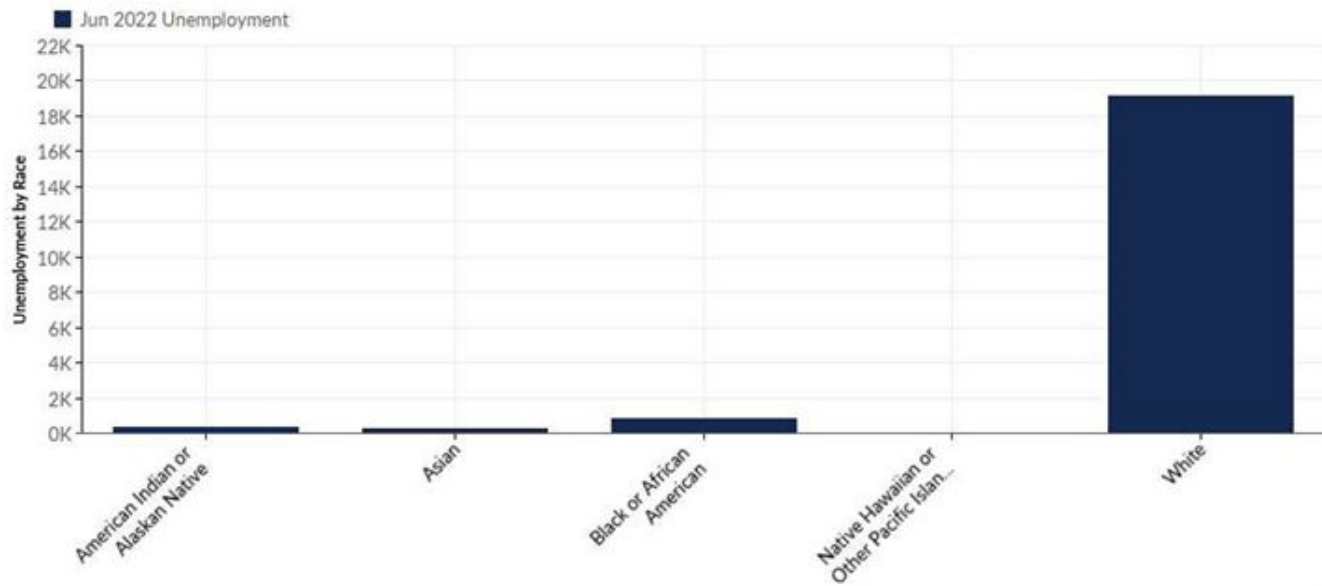
## Unemployment by Gender



Gender	Unemployment (Jun 2022)	% of Unemployed
Females	10,078	49.21%
Males	10,401	50.79%
Total	20,479	100.00%



## Unemployment by Race

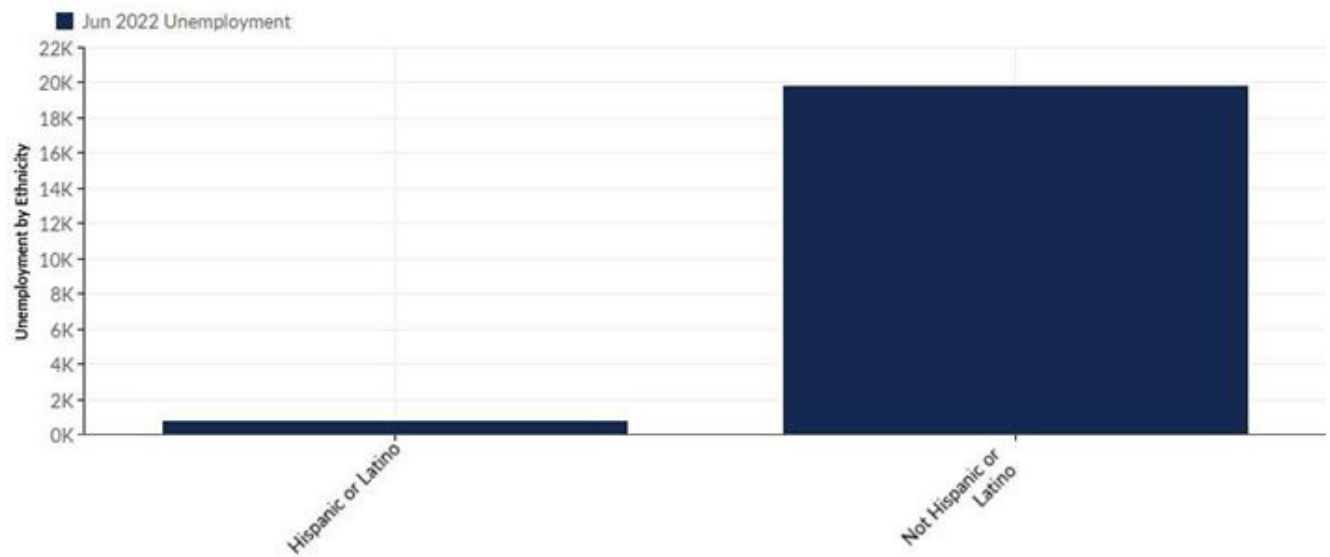


Race	Unemployment (Jun 2022)	% of Unemployed
American Indian or Alaskan Native	288	1.41%
Asian	206	1.01%
Black or African American	782	3.82%
Native Hawaiian or Other Pacific Islander	38	0.19%
White	19,165	93.58%
Total	20,479	100.00%





## Unemployment by Ethnicity



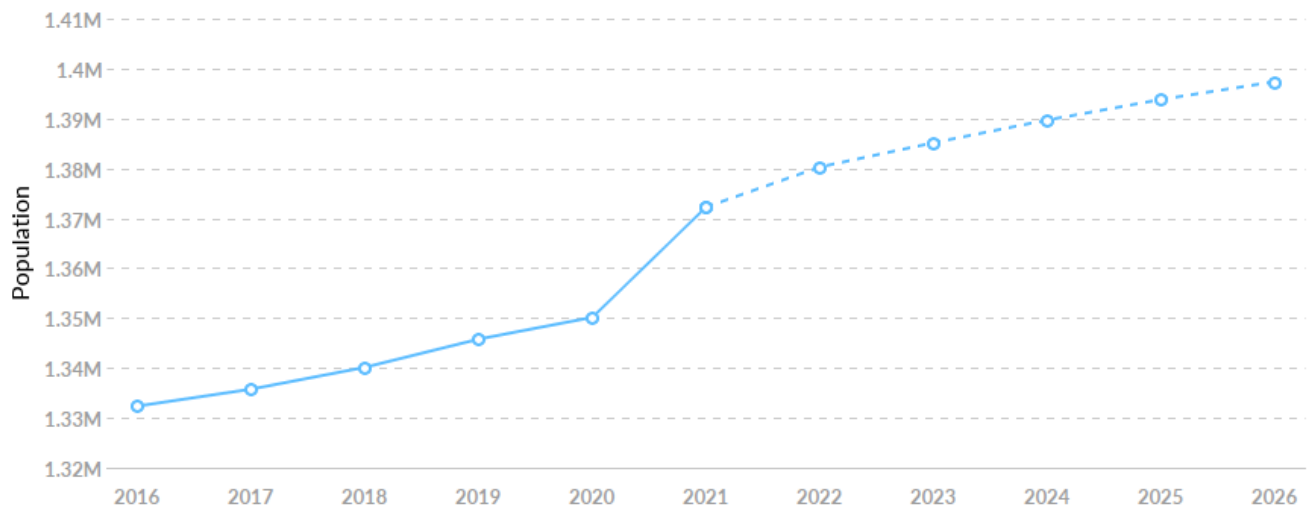
Ethnicity	Unemployment (Jun 2022)	% of Unemployed
Hispanic or Latino	697	3.40%
Not Hispanic or Latino	19,782	96.60%
Total	20,479	100.00%



## Historic & Projected Trends

### Population Trends

As of 2021 the region's population **increased by 3.0%** since 2016, growing by 39,899. Population is expected to **increase by 1.8%** between 2021 and 2026, adding 25,125.

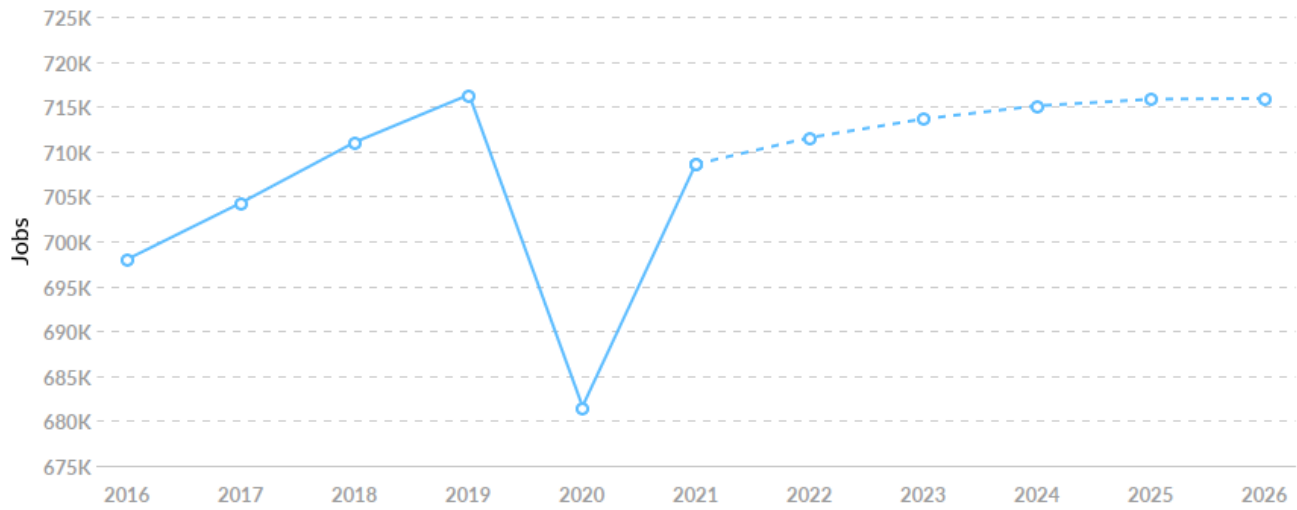


Timeframe	Population
2016	1,332,348
2017	1,335,743
2018	1,340,123
2019	1,345,770
2020	1,350,141
2021	1,372,247
2022	1,380,272
2023	1,385,136
2024	1,389,689
2025	1,393,801
2026	1,397,372



## Job Trends

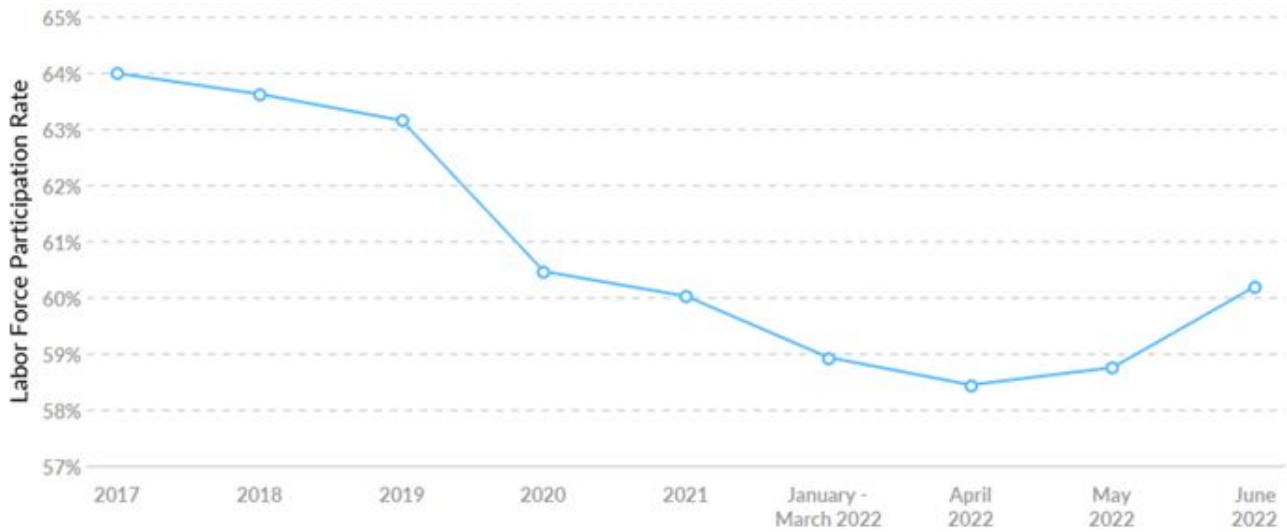
From 2016 to 2021, jobs increased by 1.5% in Maine from 697,997 to 708,588. This change fell short of the national growth rate of 1.9% by 0.4%.



Timeframe	Jobs
2016	697,997
2017	704,282
2018	711,028
2019	716,295
2020	681,483
2021	708,588
2022	711,538
2023	713,619
2024	715,075
2025	715,808
2026	715,891



## Labor Force Participation Rate Trends

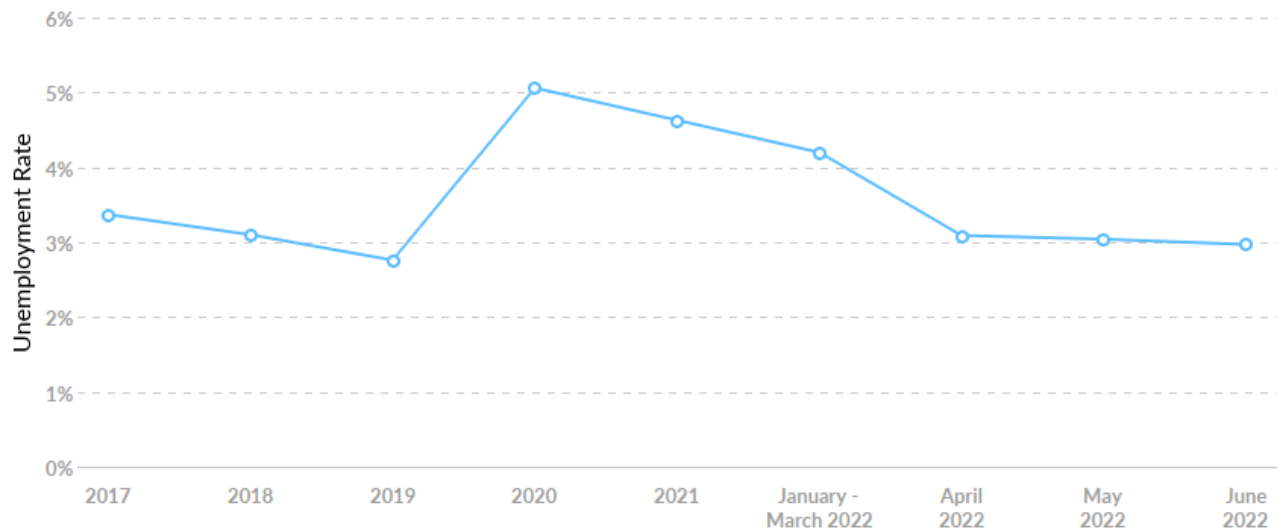


Timeframe	Labor Force Participation Rate
2017	63.99%
2018	63.62%
2019	63.15%
2020	60.46%
2021	60.02%
January - March 2022	58.93%
April 2022	58.44%
May 2022	58.75%
June 2022	60.19%



## Unemployment Rate Trends

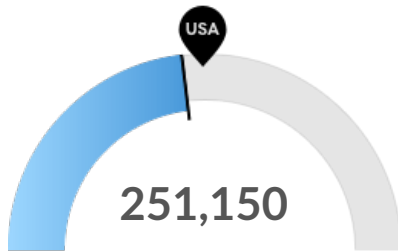
Maine had a June 2022 unemployment rate of 2.97%, **decreasing from 3.37%** 5 years before.



Timeframe	Unemployment Rate
2017	3.37%
2018	3.10%
2019	2.76%
2020	5.06%
2021	4.63%
January - March 2022	4.20%
April 2022	3.09%
May 2022	3.04%
June 2022	2.97%

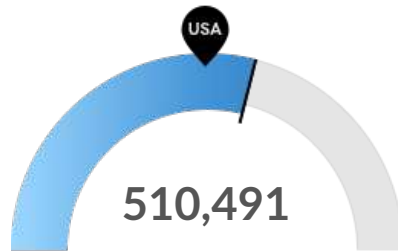


## Population Characteristics



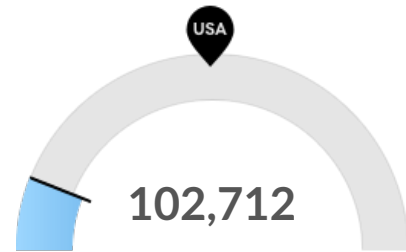
**Millennials**

Maine has 251,150 millennials (ages 25-39). The national average for an area this size is 280,303.



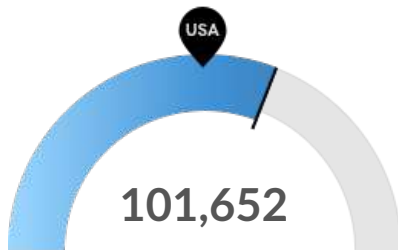
**Retiring Soon**

Retirement risk is high in Maine. The national average for an area this size is 407,882 people 55 or older, while there are 510,491 here.



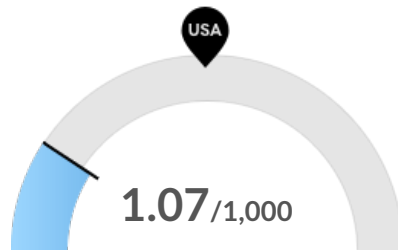
**Racial Diversity**

Racial diversity is low in Maine. The national average for an area this size is 558,420 racially diverse people, while there are 102,712 here.



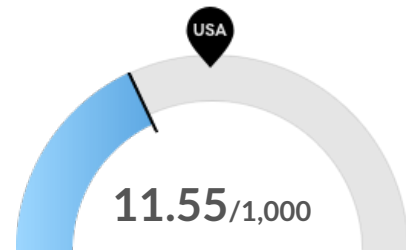
**Veterans**

Maine has 101,652 veterans. The national average for an area this size is 73,085.



**Violent Crime**

Maine has 1.07 violent crimes per 1,000 people. The national rate is 3.62 per 1,000 people.



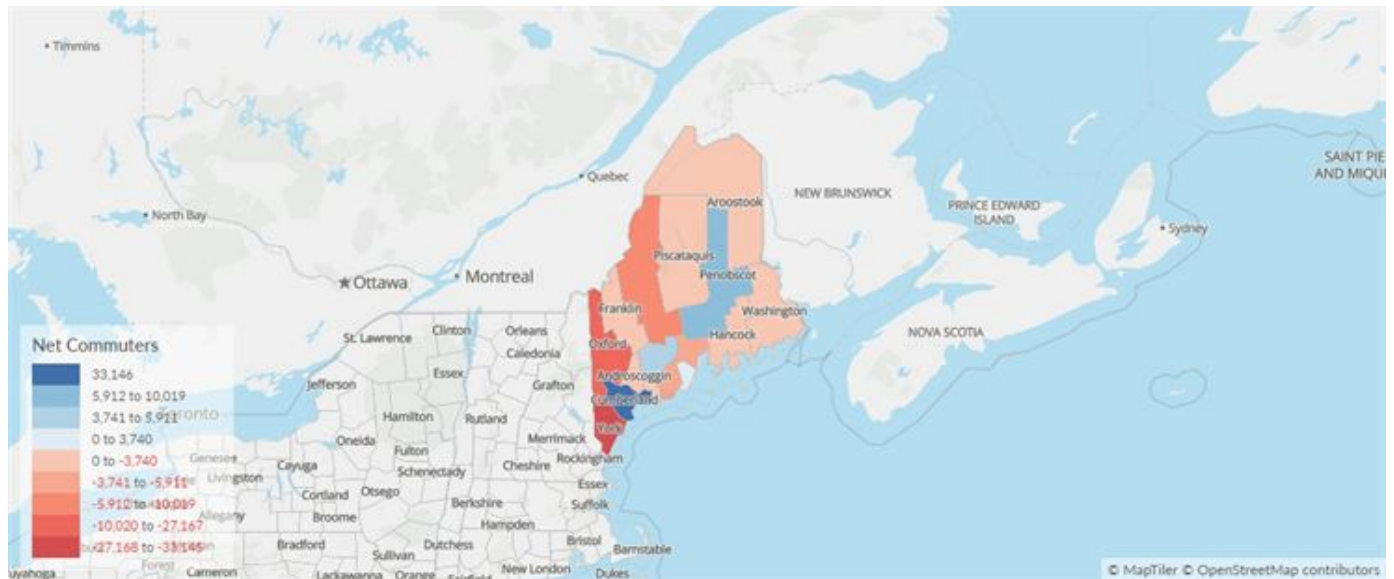
**Property Crime**

Maine has 11.55 property crimes per 1,000 people. The national rate is 17.91 per 1,000 people.



## Place of Work vs Place of Residence

Understanding where talent in Maine currently works compared to where talent lives can help you optimize site decisions.



### Where Talent Works

County	Name	2021 Employment
23005	Cumberland County, ME	218,024
23031	York County, ME	87,640
23019	Penobscot County, ME	77,249
23011	Kennebec County, ME	66,610
23001	Androscoggin County, ...	53,794

### Where Talent Lives

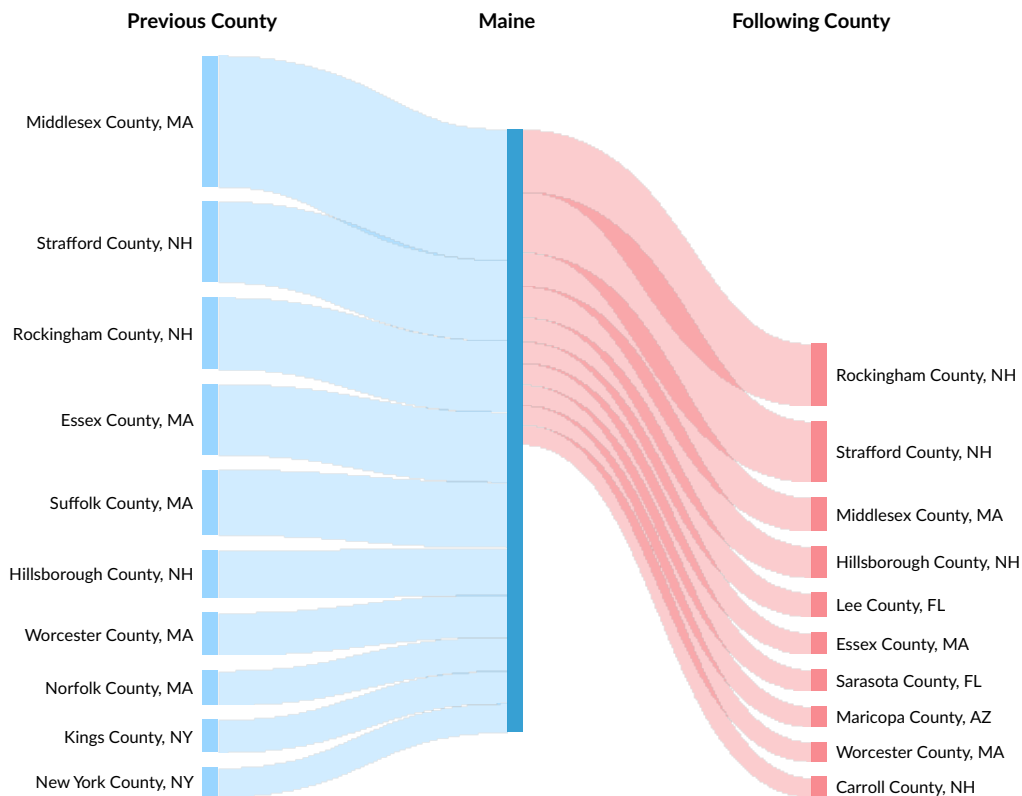
County	Name	2021 Workers
23005	Cumberland County, ME	184,877
23031	York County, ME	114,807
23019	Penobscot County, ME	70,640
23011	Kennebec County, ME	62,182
23001	Androscoggin County, ...	54,602



## Inbound and Outbound Migration

The table below analyzes past and current residents of Maine. The left column shows residents of other counties migrating to Maine. The right column shows residents migrating from Maine to other counties.

As of 2020, **1,685** people have migrated from Middlesex County, MA to Maine. In the same year, **804** people left Maine migrating to Rockingham County, NH. The total Net Migration for Maine in 2020 was **10,148**.



### Top Previous Counties

### Migrations

Middlesex County, MA	1,685
Strafford County, NH	1,037
Rockingham County, NH	916
Essex County, MA	912
Suffolk County, MA	837
Hillsborough County, NH	612





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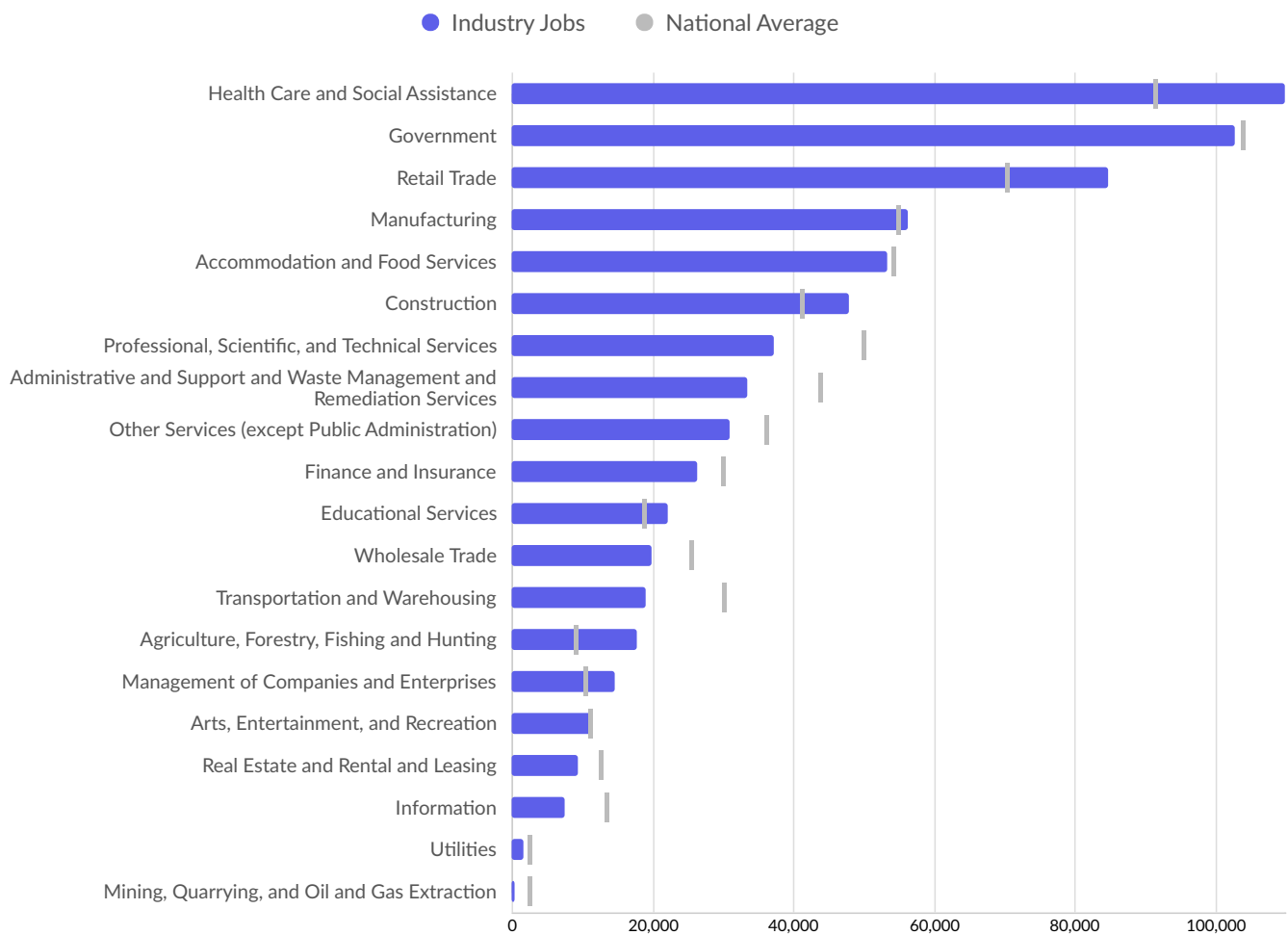
Economy  
Overview

Top Previous Counties	Migrations
Worcester County, MA	543
Norfolk County, MA	440
Kings County, NY	419
New York County, NY	372
Merrimack County, NH	302
Carroll County, NH	293
Plymouth County, MA	281
Hartford County, CT	281
Fairfield County, CT	265
Top Following Counties	Migrations
Rockingham County, NH	804
Strafford County, NH	782
Middlesex County, MA	434
Hillsborough County, NH	403
Lee County, FL	312
Essex County, MA	280
Sarasota County, FL	278
Maricopa County, AZ	264
Worcester County, MA	254
Carroll County, NH	251
Pasco County, FL	246
Suffolk County, MA	234
Polk County, FL	184
Pinellas County, FL	180
Merrimack County, NH	177



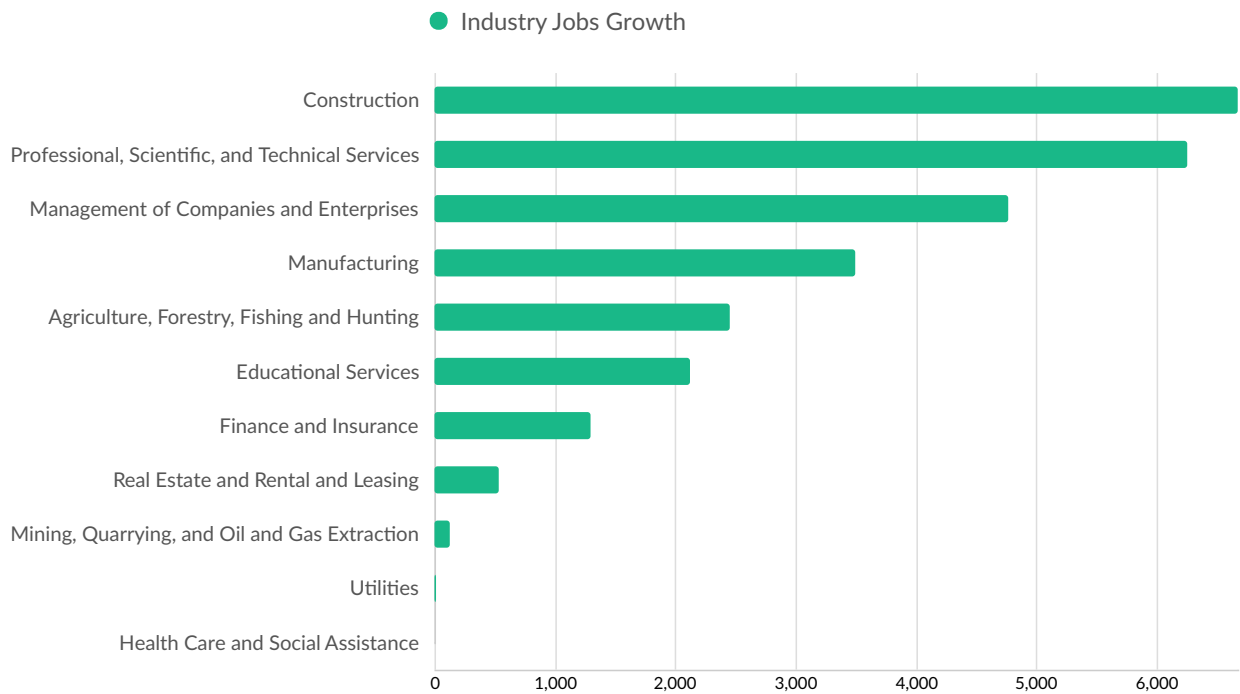
## Industry Characteristics

### Largest Industries





## Top Growing Industries

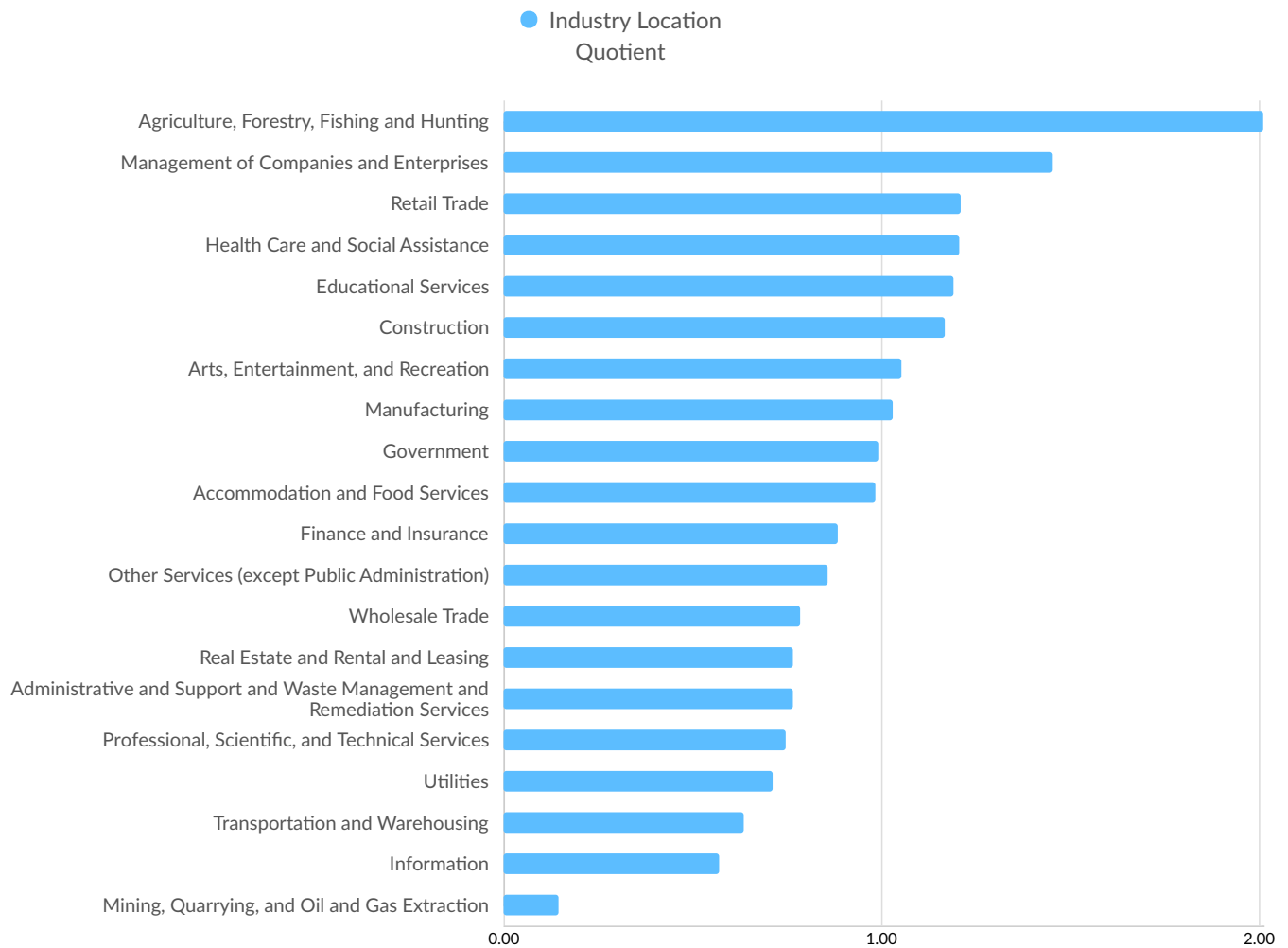




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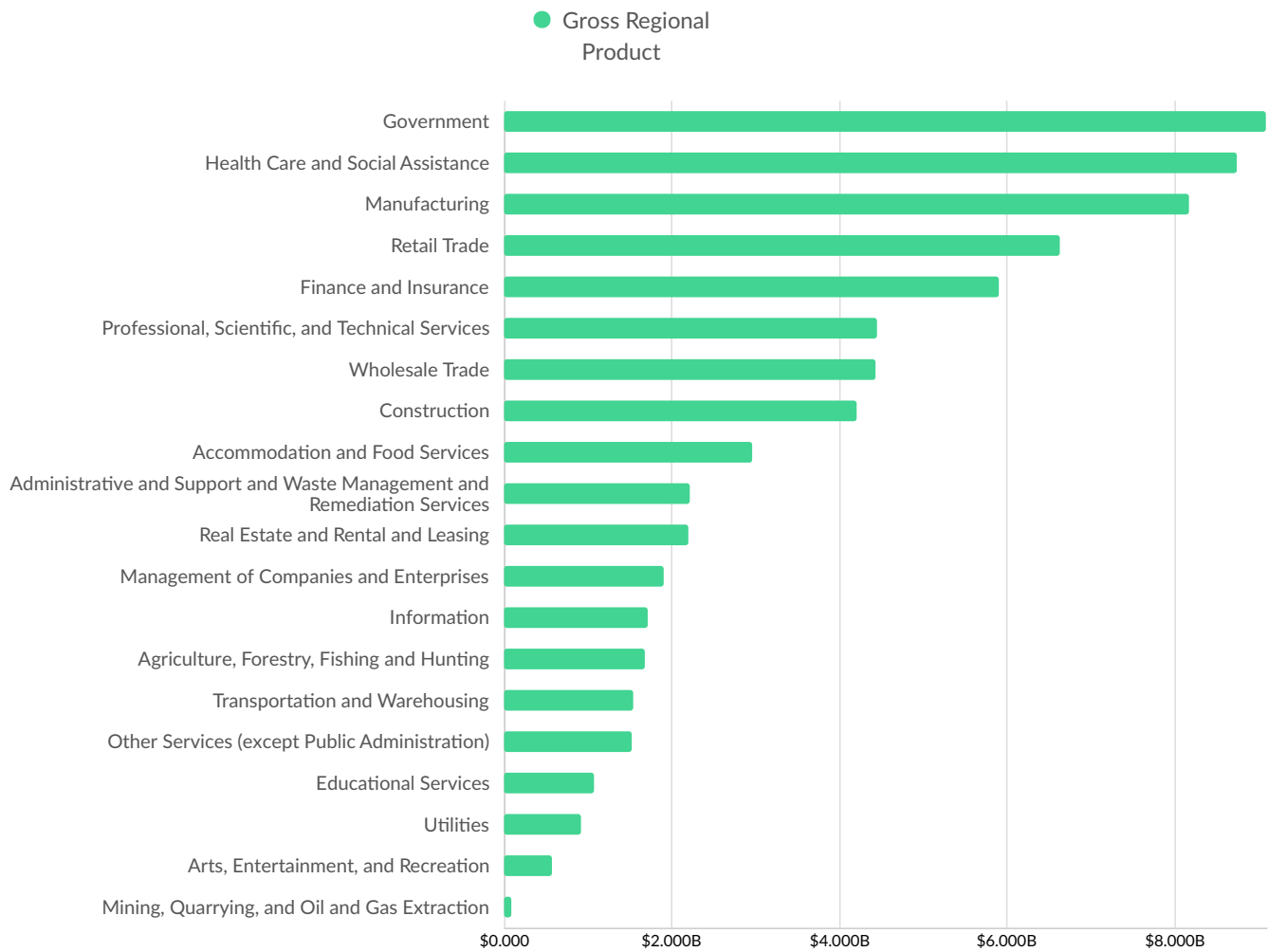
Economy  
Overview

## Top Industry Location Quotient





## Top Industry GRP

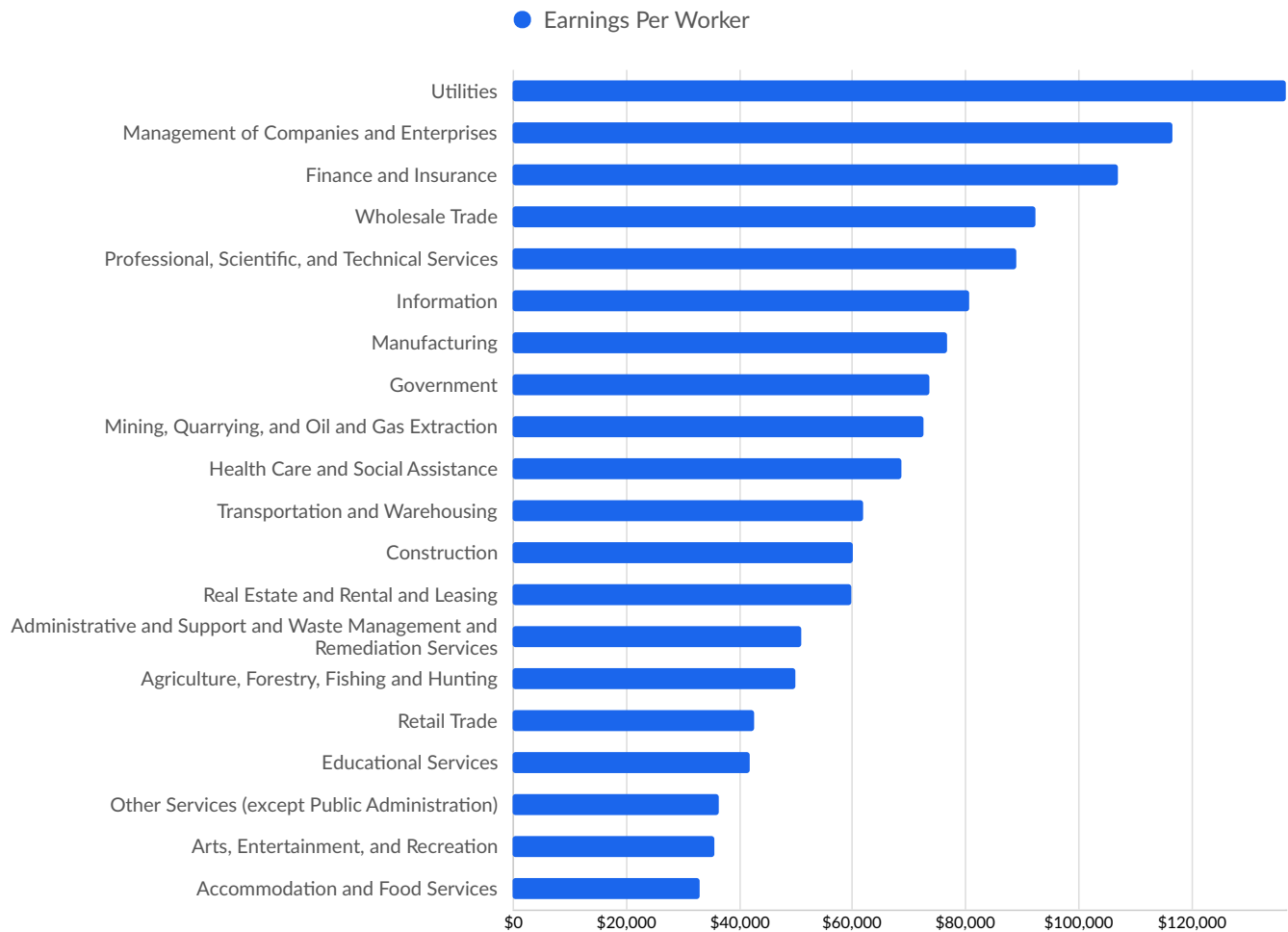




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Economy  
Overview

## Top Industry Earnings





## Business Characteristics

### 100,588 Companies Employ Your Workers

Online profiles for your workers mention 100,588 companies as employers, with the top 10 appearing below. In the last 12 months, 4,325 companies in Maine posted job postings, with the top 10 appearing below.

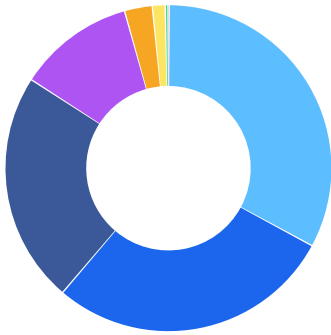
Top Companies	Profiles	Top Companies Posting	Unique Postings
Maine Medical Center	6,173 <div></div>	Maine Medical Center	4,905 <div></div>
State Of Maine	4,438 <div></div>	General Dynamics	2,298 <div></div>
University of Maine System	3,530 <div></div>	Maine State Library	1,934 <div></div>
Unum	2,784 <div></div>	MaineGeneral Health	1,705 <div></div>
IDEXX	2,586 <div></div>	Hannaford Brothers Company	1,673 <div></div>
TD Bank	2,381 <div></div>	Walgreens Boots Alliance	1,527 <div></div>
L.L. Bean	2,288 <div></div>	Walmart	1,471 <div></div>
Hannaford Brothers Company	2,139 <div></div>	Humana	1,373 <div></div>
Eastern Maine Medical Center	1,793 <div></div>	University of Maine System	1,326 <div></div>
General Dynamics	1,663 <div></div>	Central Maine Medical Center	1,250 <div></div>



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Economy  
Overview

## Business Size



	Percentage	Business Count
1 to 4 employees	32.8%	19,107
5 to 9 employees	28.3%	16,506
10 to 19 employees	22.9%	13,333
20 to 49 employees	11.5%	6,721
50 to 99 employees	2.8%	1,603
100 to 249 employees	1.3%	738
250 to 499 employees	0.3%	161
500+ employees	0.1%	66

\*Business Data by DatabaseUSA.com is third-party data provided by Lightcast to its customers as a convenience, and Lightcast does not endorse or warrant its accuracy or consistency with other published Lightcast data. In most cases, the Business Count will not match total companies with profiles on the summary tab.



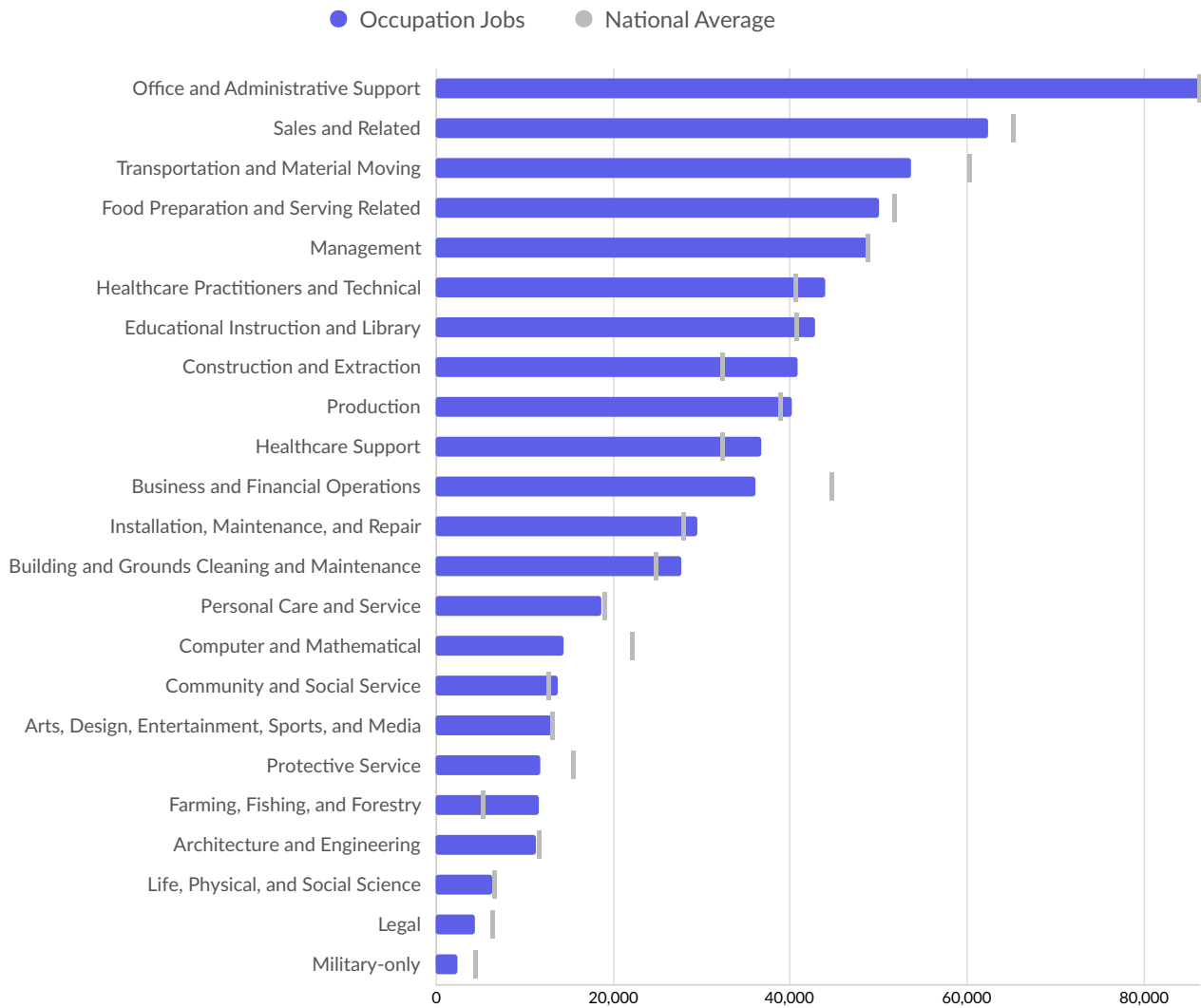


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Overview

## Workforce Characteristics

### Largest Occupations

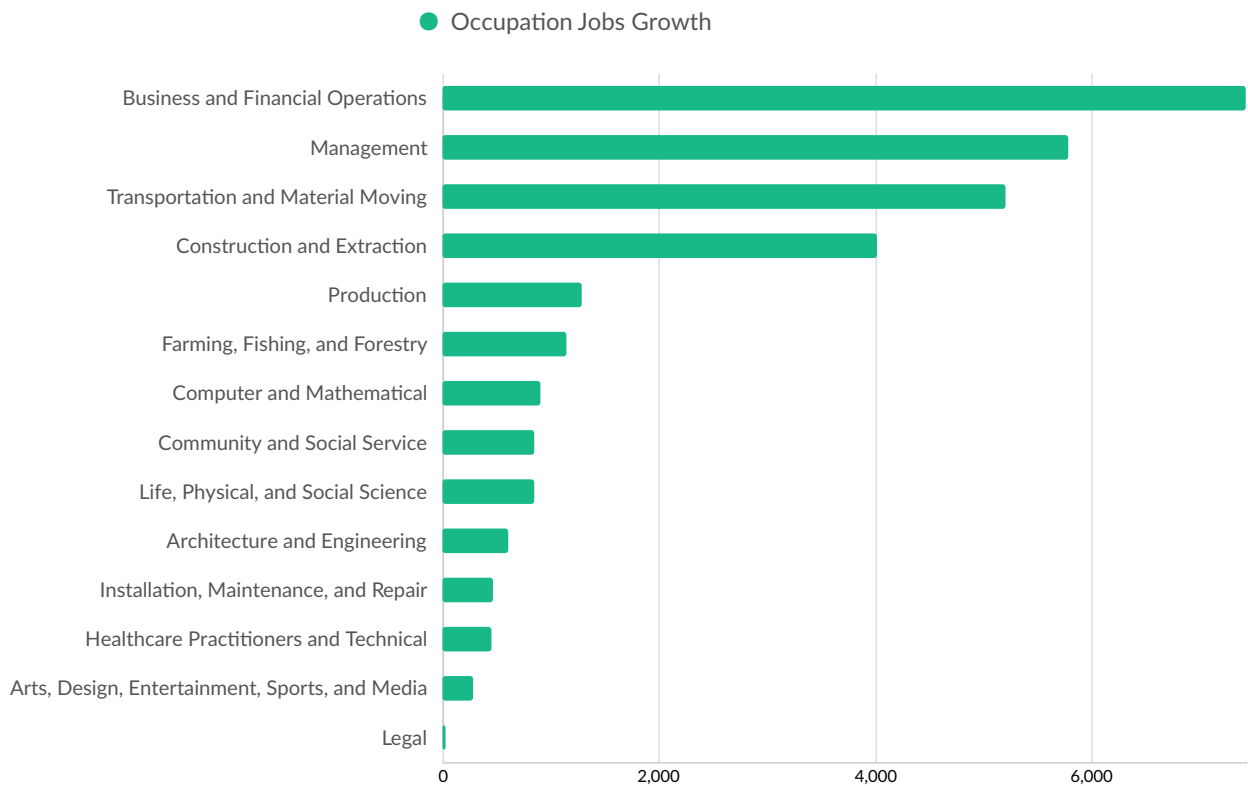




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Overview

## Top Growing Occupations

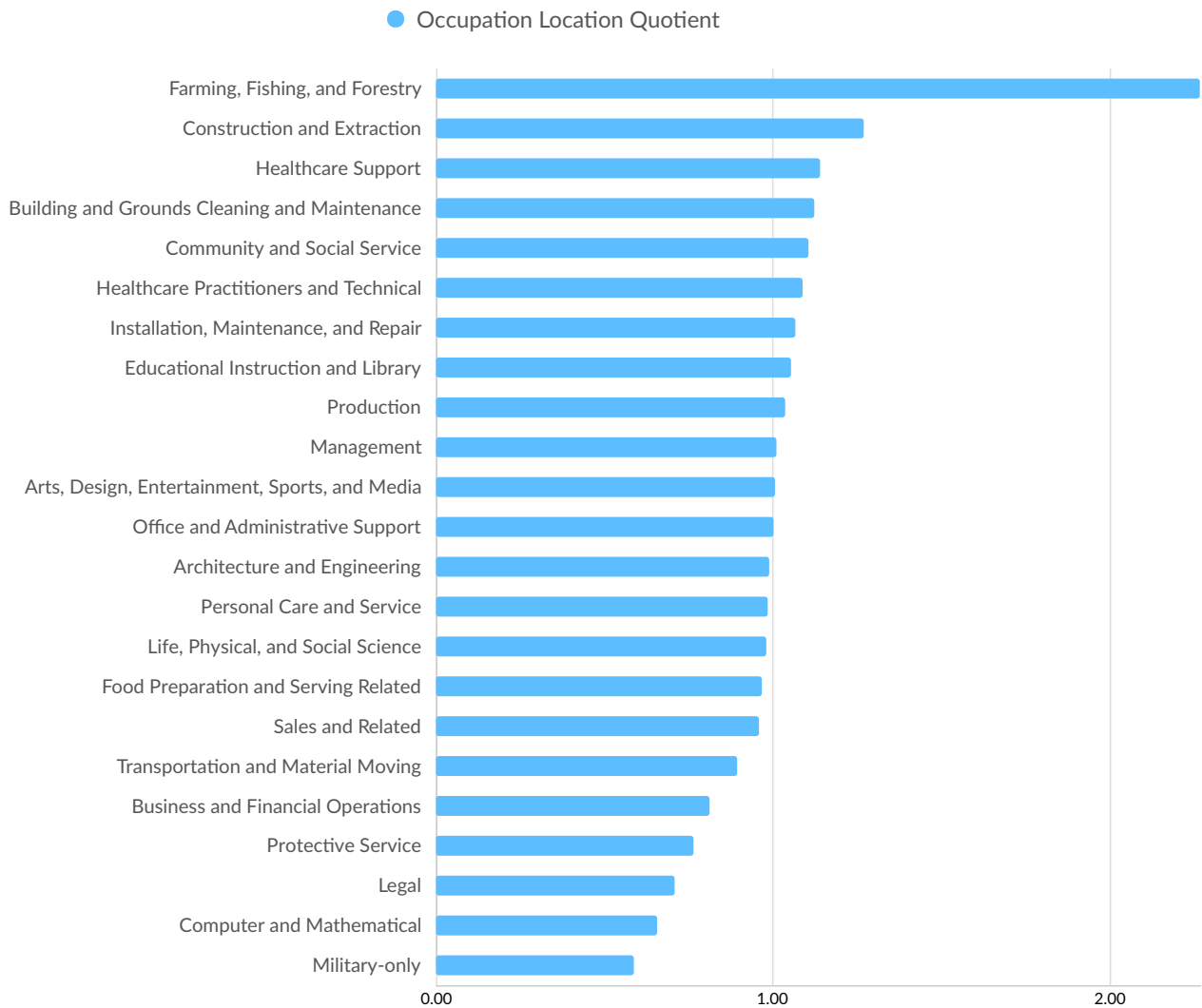




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Overview

## Top Occupation Location Quotient

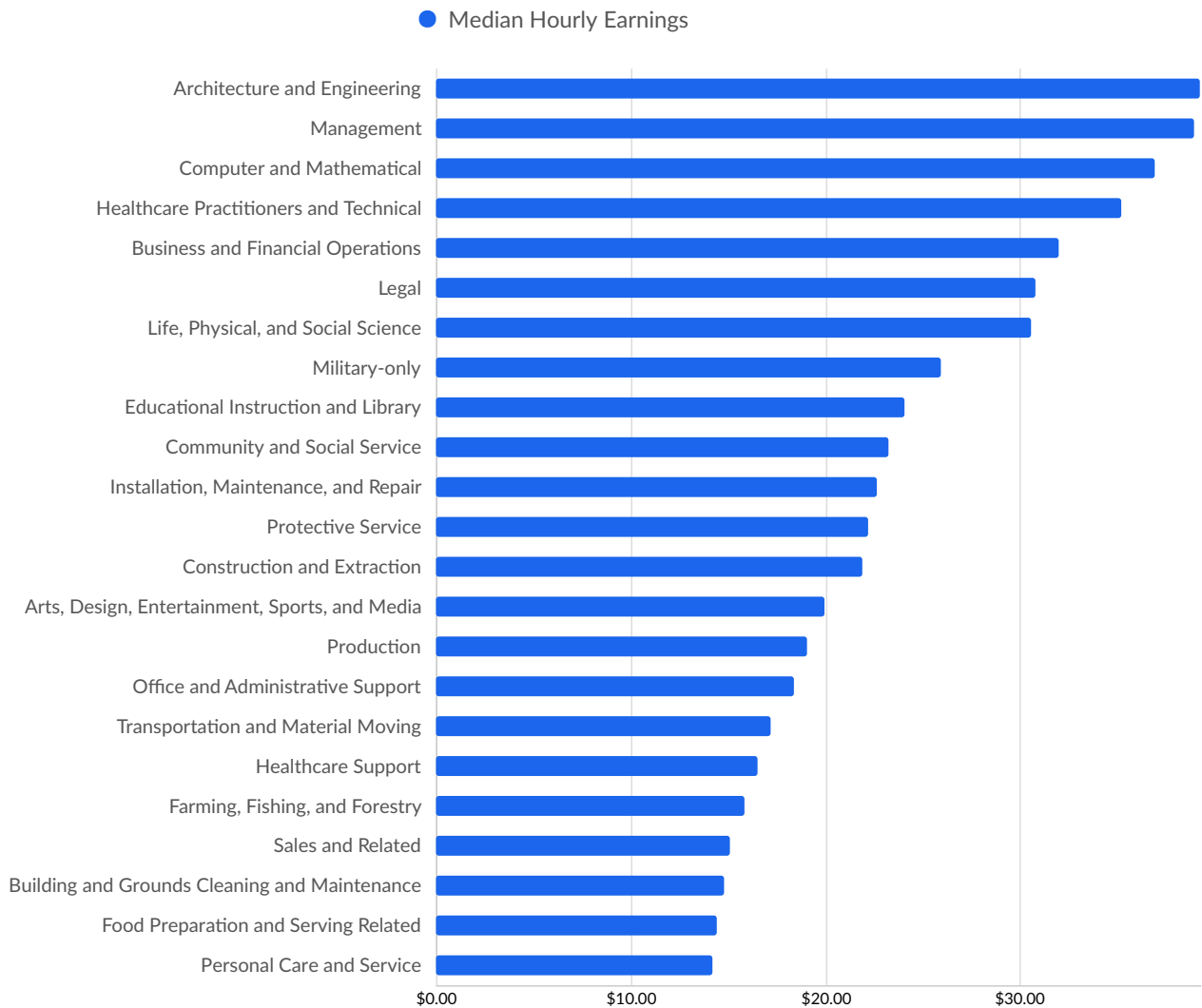




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Economy  
Overview

## Top Occupation Earnings

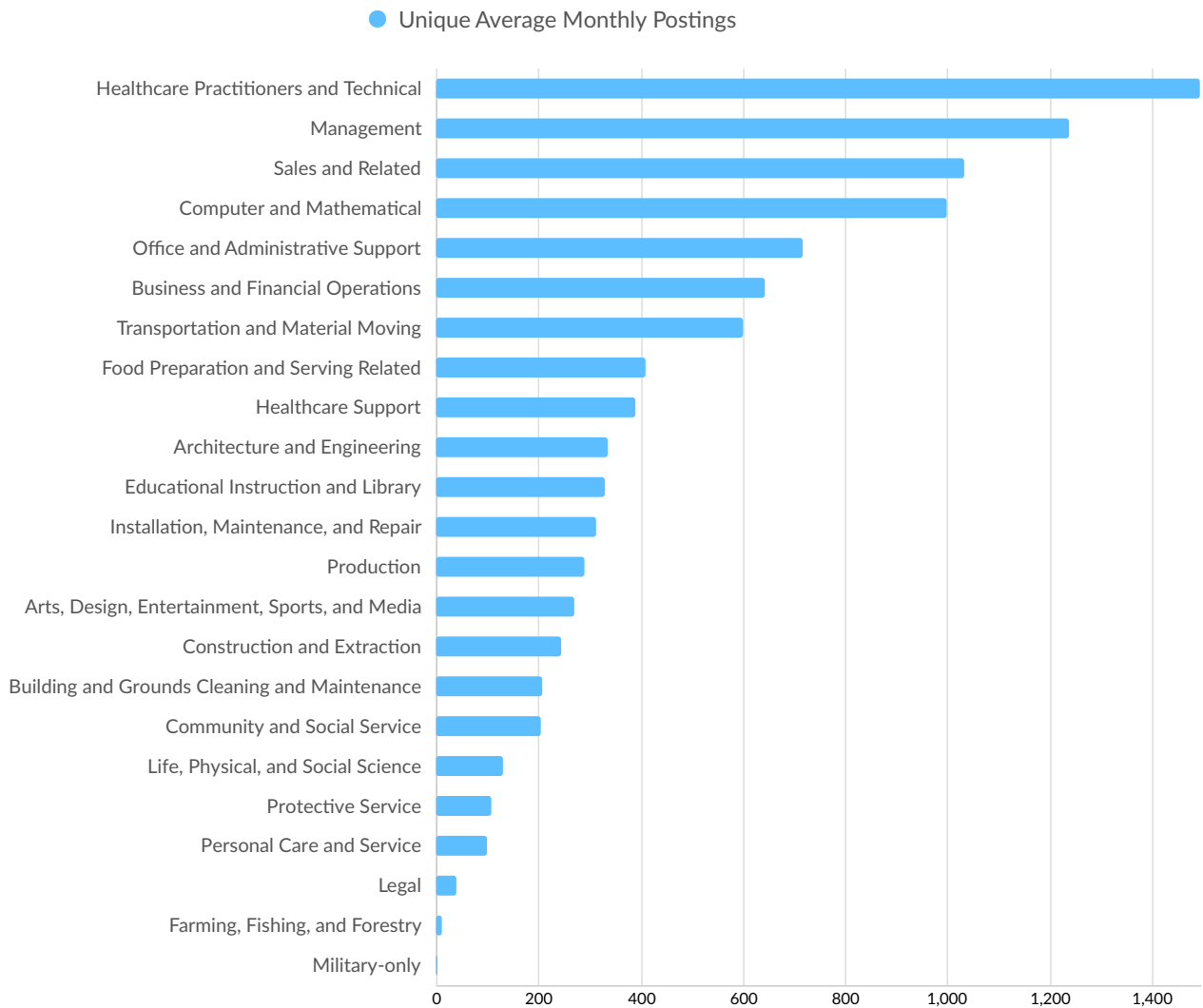




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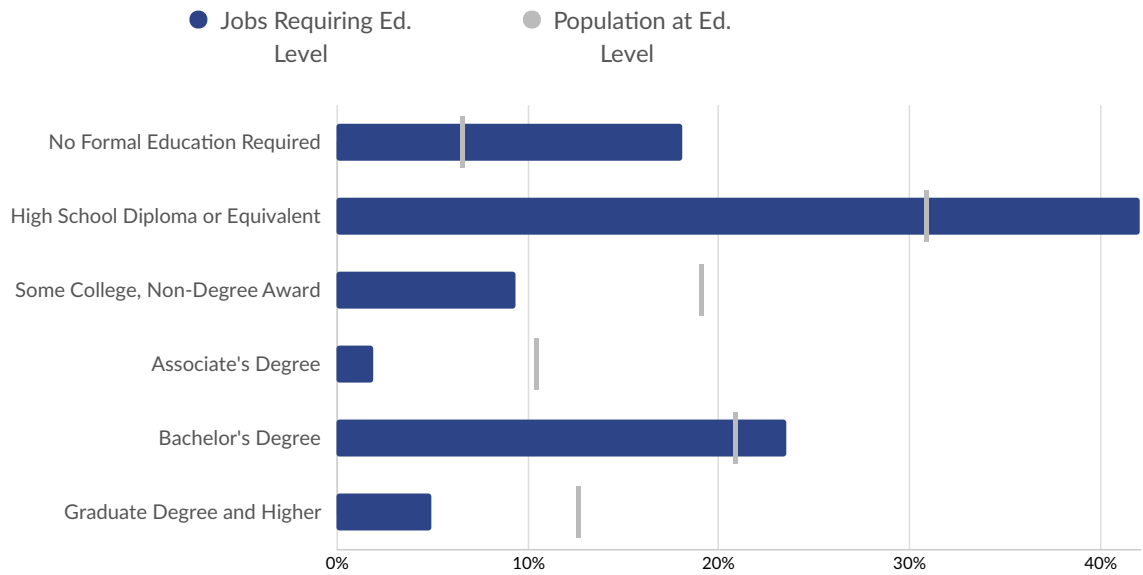
Economy  
Overview

## Top Posted Occupations





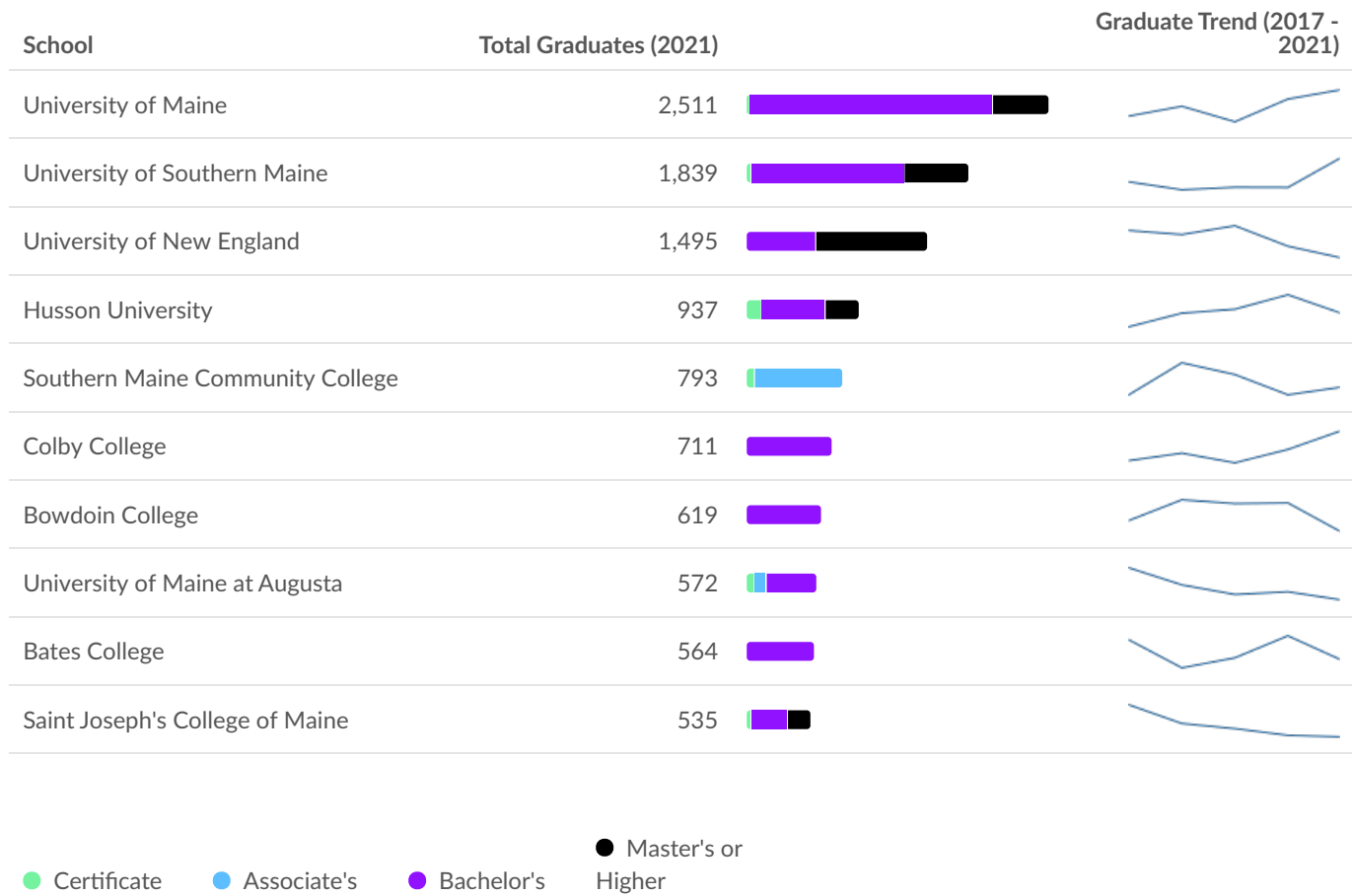
## Underemployment





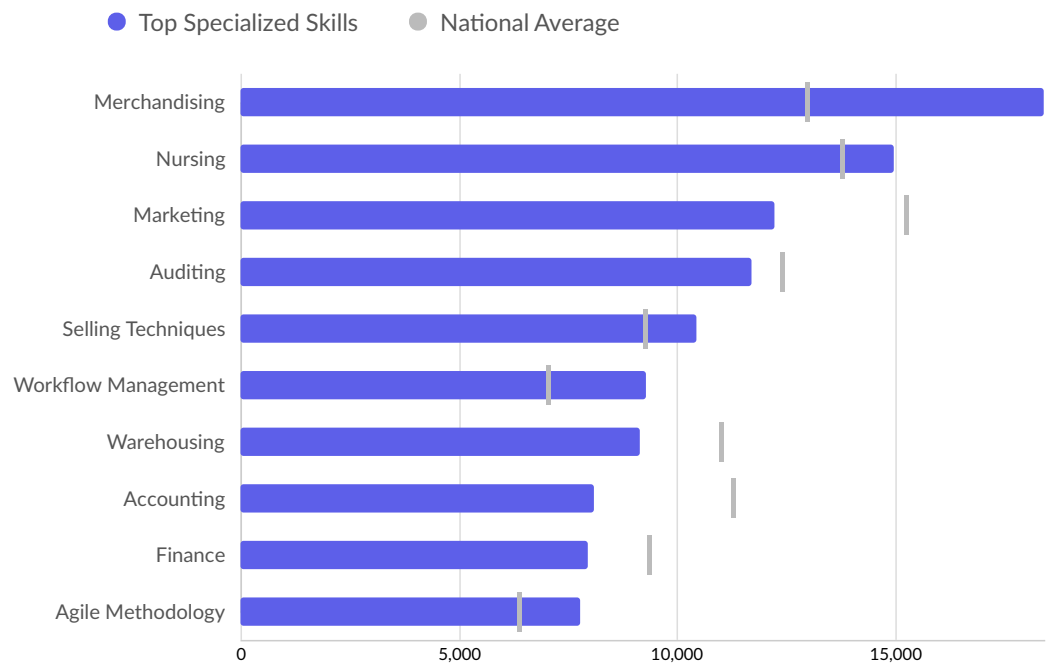
## Educational Pipeline

In 2021, there were 14,987 graduates in Maine. This pipeline has shrunk by 3% over the last 5 years. The highest share of these graduates come from Registered Nursing/Registered Nurse, "Business Administration and Management, General", and Social Work.





## In-Demand Skills







Program Development &  
Review

Bioengineering and Biomedical Engineering (14.0501)



## Program Development & Review

# Contents

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Program Definition .....	2
Competitive Landscape .....	3
Labor Market Demand .....	6
Relevant Skills .....	16



## About Lightcast

Lightcast is a labor market analytics firm that is passionate about providing meaningful data for colleges and their students.

Our data is trusted by a breadth of users including researchers at colleges and universities, economic development organizations, and Fortune 500 companies.

Lightcast data offers a three-pronged approach to labor market information:

1. Our traditional LMI combines dozens of government sources from agencies like the Bureau of Economic Analysis, U.S. Census Bureau, and Bureau of Labor Statistics into one dataset that details industries, occupations, demographics, academic programs, and more.
2. Lightcast's job posting analytics give a real-time look into the needs of employers in today's labor market. Each month, millions of postings are scraped from employer sites and job boards, de-duplicated, and compiled into an actionable dataset.
3. Lightcast also leverages workforce profiles—an innovative database of more than 100 million resumés and professional profiles that are aggregated from the open web. These profiles unify information for workers—such as education, employment history, skills, and more—to reveal robust detail on what is happening in today's workforce.

Together, these data related to labor market demand, relevant skills, and the competitive landscape help colleges and universities make informed decisions about their program offerings.



## Program Development & Review

# Program Definition

Institution:

Code	Description
161253	University of Maine

Program in Question:

Code	Description
14.0501	Bioengineering and Biomedical Engineering



## Program Development & Review

# Competitive Landscape

### Institution Sectors:

#### Description

Public, 4-year or above

Private not-for-profit, 4-year or above

#### Description

Private for-profit, 4-year or above

### Education Levels:

#### Description

Bachelor's Degree

Master's Degree

#### Description

Doctor's Degree

### Program Type:

#### Description

Distance Offered (Includes Hybrid & Mixed Modality Programs)

#### Description

Non-Distance Offered Programs

### Region:

#### Code Description

9 Connecticut

23 Maine

25 Massachusetts

#### Code Description

33 New Hampshire

44 Rhode Island

50 Vermont

Student Charges Type: Tuition & Fees

Student Charges Grad Status: Undergraduate

Student Charges Residency: In-State



## Program Development & Review

### Program Overview



	Completions (2021)	% Completions	Institutions (2021)	% Institutions
● All Programs	1,169	100%	24	100%
● Distance Offered Programs	0	0%	0	0%
● Non-Distance Offered Programs	1,169	100%	24	100%

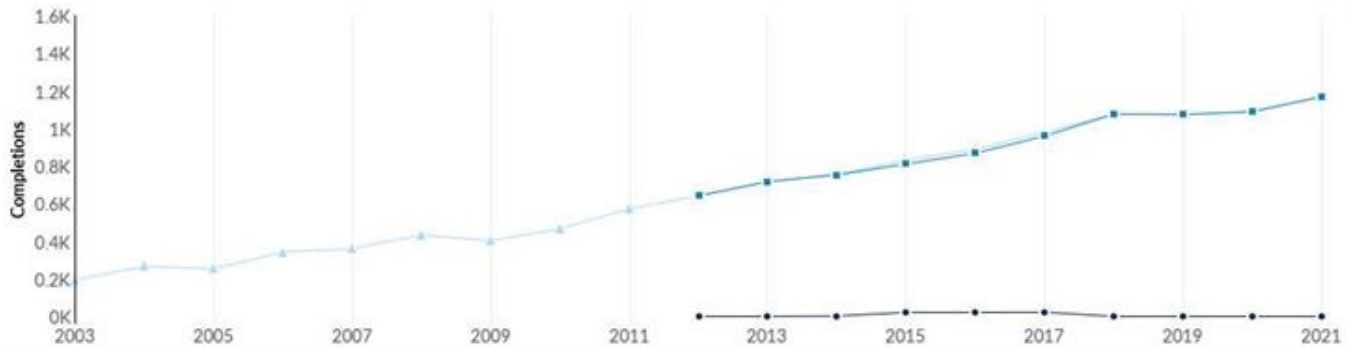
### Completions by Institution

Institution	Completions (2021)	Growth % YOY (2021)	Market Share (2021)	IPEDS Tuition & Fees (2021)	Completions Trend (2017-2021)
Boston University	225	-2.2%	19.2%	\$59,816	
University of Connecticut	126	-2.3%	10.8%	\$18,524	
Worcester Polytechnic Institute	120	-1.6%	10.3%	\$55,531	
Massachusetts Institute of Technology	88	15.8%	7.5%	\$55,878	
University of Massachusetts-Lowell	76	52.0%	6.5%	\$15,698	
Tufts University	76	28.8%	6.5%	\$63,000	
Yale University	68	17.2%	5.8%	\$59,950	
University of Massachusetts-Amherst	58	5,700.0%	5.0%	\$16,439	
Wentworth Institute of Technology	55	-12.7%	4.7%	\$37,650	
Brown University	43	-4.4%	3.7%	\$62,304	



## Program Development & Review

### Regional Trends



	2012 Completions	2021 Completions	% Change
● Distance Offered Programs	0	0	0.0%
■ Non-Distance Offered Programs	641	1,169	+82.4%
▲ All Programs	641	1,169	+82.4%



## Program Development & Review

# Labor Market Demand

### Labor Market Area Selection:

Code	Description	Code	Description
9	Connecticut	33	New Hampshire
23	Maine	44	Rhode Island
25	Massachusetts	50	Vermont

### Target Occupations:

Code	Description
17-2031	Bioengineers and Biomedical Engineers

Degree Levels:Any

Completions Year (default):2021

Jobs Year (default):2021





## Program Development & Review

### Target Occupations

<p>2,043</p> <p>Jobs (2021)</p> <p>124% <b>above</b> National average</p>	<p><b>+11.7%</b></p> <p>% Change (2021-2026)</p> <p>Nation: <b>+6.1%</b></p>	<p>\$46.87/hr</p> <p>\$97.5K/yr</p> <p>Median Earnings</p> <p>Nation: \$46.83/hr; \$97.4K/yr</p>	<p>183</p> <p>Annual Openings</p>
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Occupation	2021 Jobs	Annual Openings	Median Earnings	Growth (2021 - 2026)
Bioengineers and Biomedical Engineers	2,043	183	\$46.87/hr	<b>+11.75%</b>

### Regional Trends



Region	2021 Jobs	2026 Jobs	Change	% Change
● Region	2,043	2,283	240	11.7%
■ Nation	18,590	19,717	1,127	6.1%



## Program Development & Review

### Occupation Gender Breakdown



Gender	2021 Jobs	2021 Percent	
● Males	1,651	80.8%	<div></div>
● Females	392	19.2%	<div></div>

### Occupation Age Breakdown



Age	2021 Jobs	2021 Percent	
● 14-18	0	0.0%	<div></div>
● 19-24	158	7.7%	<div></div>
● 25-34	661	32.3%	<div></div>
● 35-44	465	22.8%	<div></div>
● 45-54	361	17.7%	<div></div>
● 55-64	314	15.4%	<div></div>
● 65+	85	4.1%	<div></div>



## Program Development & Review

### Occupation Race/Ethnicity Breakdown




Race/Ethnicity	2021 Jobs	2021 Percent	
White	1,396	68.4%	
Asian	455	22.3%	
Hispanic or Latino	91	4.4%	
Black or African American	56	2.8%	
Two or More Races	42	2.1%	
Native Hawaiian or Other Pacific Islander	2	0.1%	
American Indian or Alaska Native	1	0.0%	



## Program Development & Review

### Job Postings Summary

<p>340</p> <p>Unique Postings</p> <p>676 Total Postings</p>	<p>2 : 1</p> <p>Posting Intensity</p>  <p>Regional Average: 2 : 1</p>	<p>29 days</p> <p>Median Posting Duration</p> <p>Regional Average: 30 days</p>
---	--	--

There were **676** total job postings for your selection from November 2021 to October 2022, of which **340** were unique. These numbers give us a Posting Intensity of **2-to-1**, meaning that for every 2 postings there is 1 unique job posting.

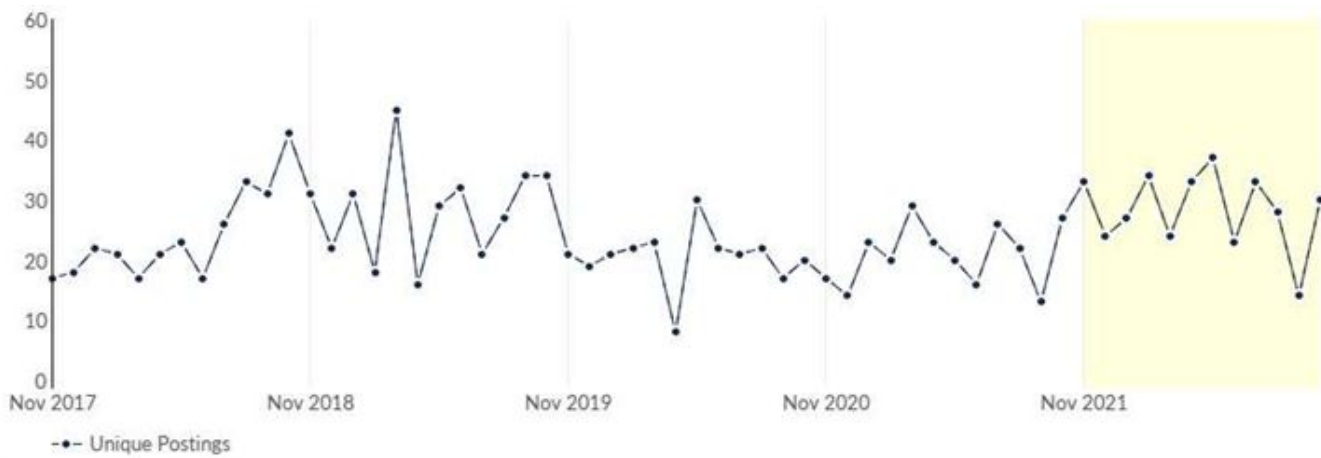
This is close to the Posting Intensity for all other occupations and companies in the region (2-to-1), indicating that they are putting average effort toward hiring for this position.



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Program Development &  
Review

## Unique Postings Trend

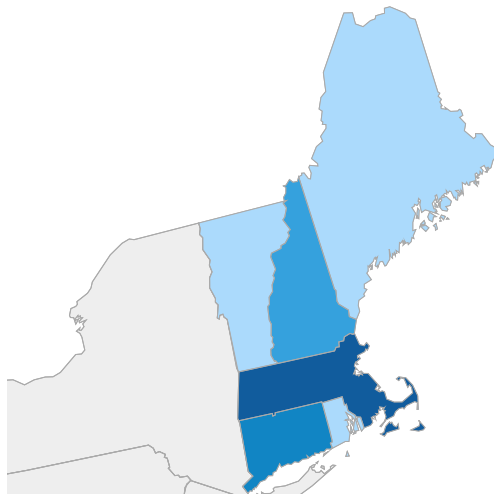


Month	Unique Postings	Posting Intensity
Oct 2022	30	1 : 1
Sep 2022	14	2 : 1
Aug 2022	28	3 : 1
Jul 2022	33	3 : 1
Jun 2022	23	2 : 1
May 2022	37	2 : 1
Apr 2022	33	2 : 1
Mar 2022	24	2 : 1
Feb 2022	34	2 : 1
Jan 2022	27	2 : 1
Dec 2021	24	2 : 1
Nov 2021	33	2 : 1



## Program Development & Review

### Job Postings Regional Breakdown



State	Unique Postings (Nov 2021 - Oct 2022)
Massachusetts	244
Connecticut	45
New Hampshire	26
Rhode Island	12
Vermont	9



## Program Development & Review

### Top Companies Posting

Company	Total/Unique (Nov 2021 - Oct 2022)	Posting Intensity	Median Posting Duration
Takeda Pharmaceutical Company	33 / 17	2 : 1	29 days
Danaher	19 / 12	2 : 1	35 days
Mass General Brigham	32 / 10	3 : 1	59 days
Randstad	18 / 10	2 : 1	30 days
United Therapeutics Corporation	19 / 9	2 : 1	n/a
Massachusetts General Hospital	19 / 8	2 : 1	20 days
Medtronic	11 / 7	2 : 1	25 days
Research & Development	10 / 7	1 : 1	18 days
Rimkus Consulting Group	8 / 6	1 : 1	n/a
The Charles Stark Draper Laboratory	16 / 6	3 : 1	n/a

### Top Cities Posting

City	Total/Unique (Nov 2021 - Oct 2022)	Posting Intensity	Median Posting Duration
Boston, MA	148 / 65	2 : 1	22 days
Cambridge, MA	58 / 28	2 : 1	39 days
Burlington, MA	35 / 19	2 : 1	29 days
Manchester, NH	31 / 17	2 : 1	18 days
Worcester, MA	20 / 14	1 : 1	59 days
Lexington, MA	21 / 12	2 : 1	30 days
Marlborough, MA	20 / 11	2 : 1	56 days
Andover, MA	21 / 10	2 : 1	25 days
Hartford, CT	30 / 10	3 : 1	8 days
Trumbull, CT	13 / 8	2 : 1	11 days



## Program Development & Review

### Top Posted Occupations

Occupation (SOC)	Total/Unique (Nov 2021 - Oct 2022)	Posting Intensity	Median Posting Duration
Bioengineers and Biomedical Engineers	676 / 340	2 : 1	29 days

### Top Posted Job Titles

Job Title	Total/Unique (Nov 2021 - Oct 2022)	Posting Intensity	Median Posting Duration
Biomedical Engineers	103 / 51	2 : 1	30 days
Clinical Engineers	80 / 31	3 : 1	23 days
Process Engineers	31 / 18	2 : 1	28 days
Clinical Systems Engineers	31 / 16	2 : 1	14 days
CMC Project Managers	21 / 11	2 : 1	29 days
Repair Shop Managers	15 / 11	1 : 1	35 days
Biomechanical Engineers	10 / 9	1 : 1	11 days
Clinical Biomedical Engineers	12 / 7	2 : 1	20 days
Principal Engineers	17 / 6	3 : 1	42 days
Verification and Validation Engineers	10 / 6	2 : 1	18 days





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Program Development &  
Review

## Rank as a Talent Provider

Lightcast's workforce profile data shows University of Maine has 10 alumni working regionally in the occupation *Bioengineers and Biomedical Engineers*. These 10 alumni represent 1.10% of regional profiles working in these occupations, which ranks your institution 17th among regional talent providers.

10 Your Alumni in Region Working in Target Occupations	1.10% Percent of Regional Profiles Working in Target Occupations	17 Your Rank as a Regional Talent Provider
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## Top Talent Providers

The top regional institutions supplying the labor market with workers employed in the target occupations listed above, based on Lightcast's workforce profile data.

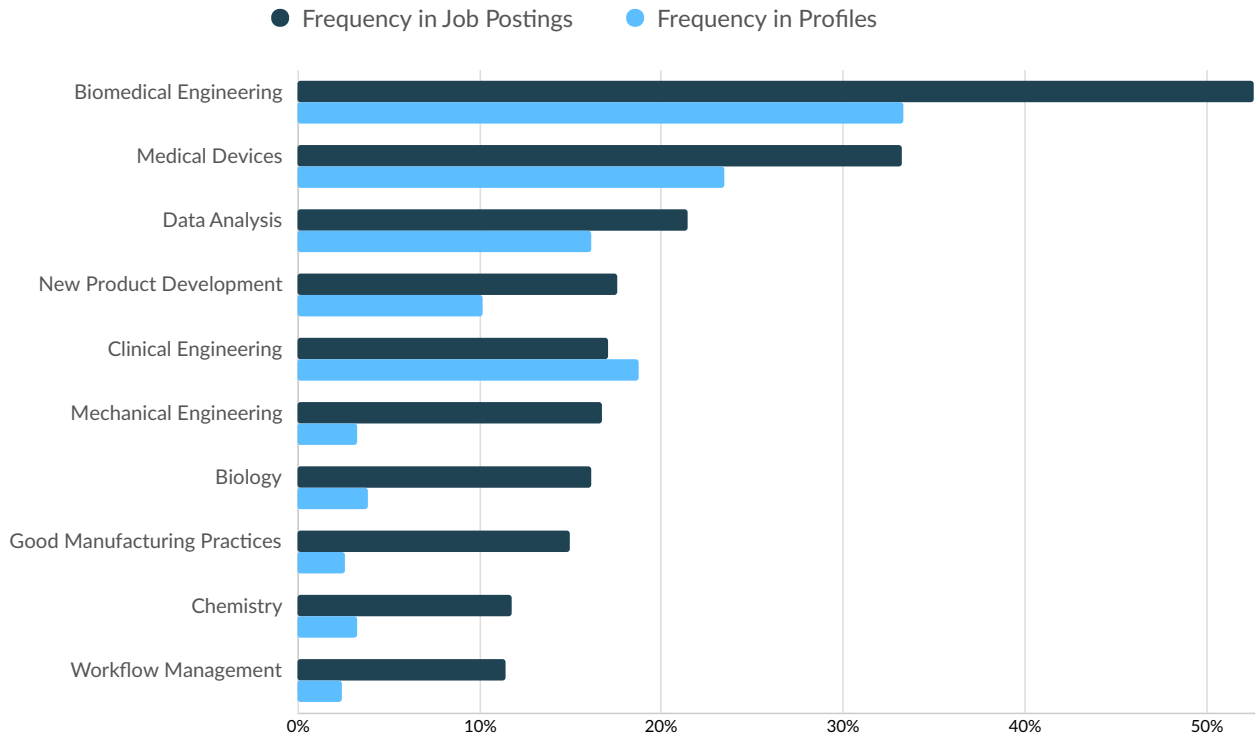
School	Profiles	Percent
Boston University	57	6.27%
University of Connecticut	55	6.05%
Northeastern University	45	4.95%
Worcester Polytechnic Institute	28	3.08%
Wentworth Institute of Technology	27	2.97%
University of Massachusetts-Lowell	23	2.53%
Massachusetts Institute of Technology	22	2.42%
Tufts University	22	2.42%
Harvard University	19	2.09%
University of Massachusetts-Amherst	19	2.09%



## Program Development & Review

# Relevant Skills

## Top Specialized Skills

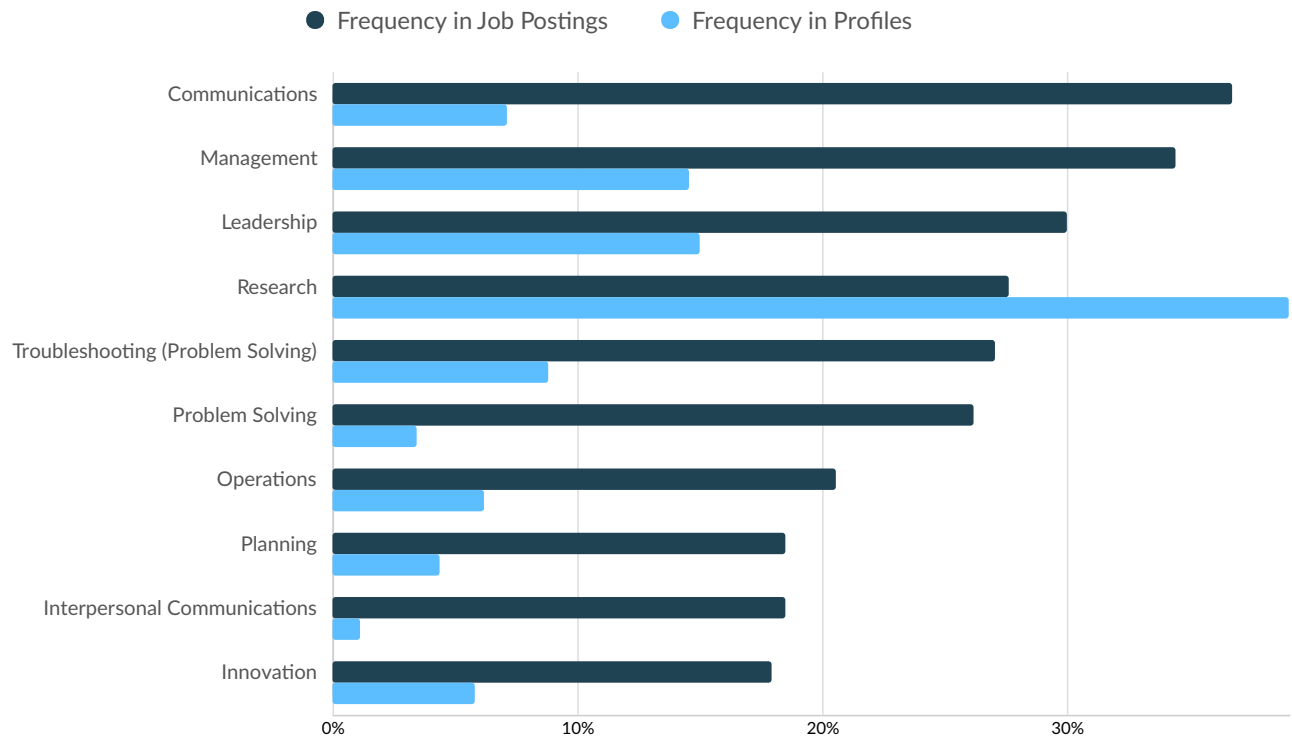


Skills	Postings	% of Total Postings	Profiles	% of Total Profiles
Biomedical Engineering	179	53%	291	33%
Medical Devices	113	33%	205	23%
Data Analysis	73	21%	141	16%
New Product Development	60	18%	89	10%
Clinical Engineering	58	17%	164	19%
Mechanical Engineering	57	17%	29	3%
Biology	55	16%	34	4%
Good Manufacturing Practices	51	15%	23	3%
Chemistry	40	12%	29	3%
Workflow Management	39	11%	21	2%



## Program Development & Review

### Top Common Skills



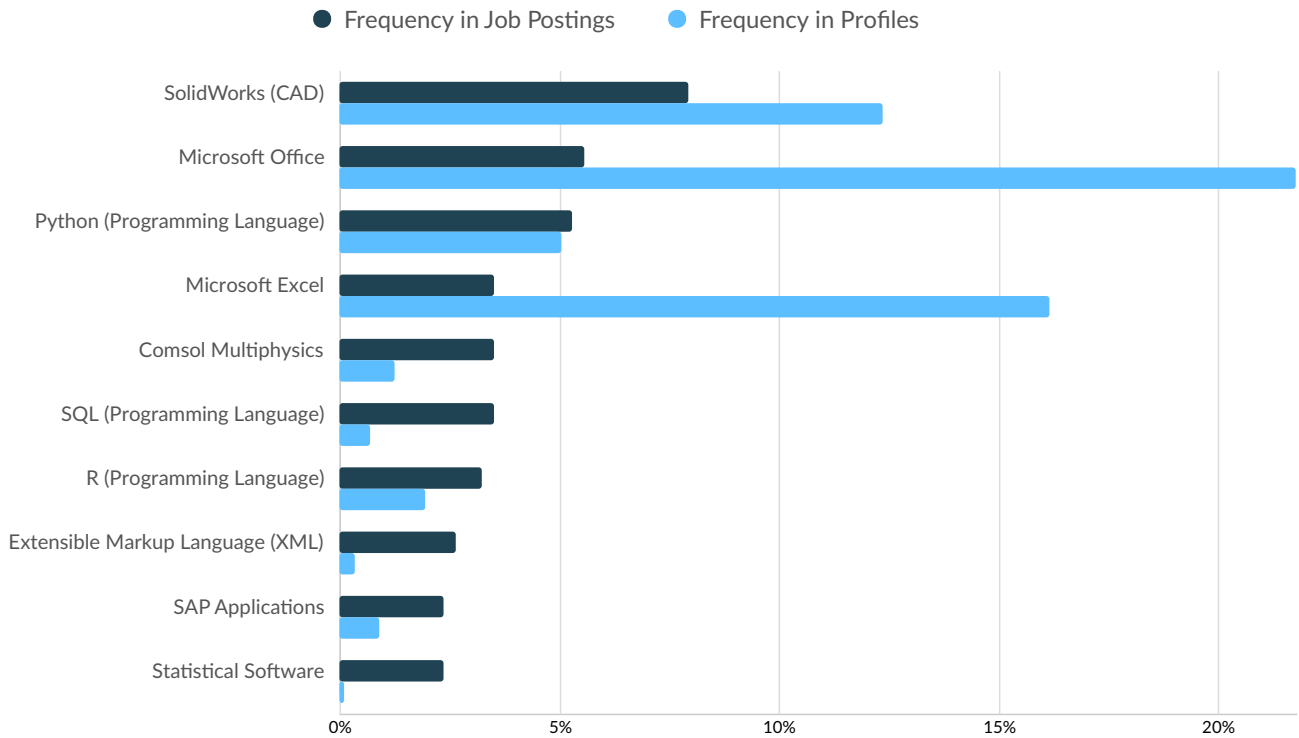
Skills	Postings	% of Total Postings	Profiles	% of Total Profiles
Communications	125	37%	62	7%
Management	117	34%	127	15%
Leadership	102	30%	131	15%
Research	94	28%	341	39%
Troubleshooting (Problem Solving)	92	27%	77	9%
Problem Solving	89	26%	30	3%
Operations	70	21%	54	6%
Planning	63	19%	38	4%
Interpersonal Communications	63	19%	10	1%
Innovation	61	18%	51	6%



Lightcast

## Program Development & Review

### Top Software Skills



Skills	Postings	% of Total Postings	Profiles	% of Total Profiles
SolidWorks (CAD)	27	8%	108	12%
Microsoft Office	19	6%	190	22%
Python (Programming Language)	18	5%	44	5%
Microsoft Excel	12	4%	141	16%
Comsol Multiphysics	12	4%	11	1%
SQL (Programming Language)	12	4%	6	1%
R (Programming Language)	11	3%	17	2%
Extensible Markup Language (XML)	9	3%	3	0%
SAP Applications	8	2%	8	1%
Statistical Software	8	2%	1	0%



## Program Development & Review

### Top Qualifications

Qualification	Postings with Qualification
Security Clearance	16
Master Of Business Administration (MBA)	9
Certified Loss Control Specialist	5
Top Secret-Sensitive Compartmented Information (TS/SCI Clearance)	5
Bachelor Of Science in Nursing (BSN)	2
Board Certified/Board Eligible	2
(American Society For Quality) ASQ Certified	2
Basic Cardiac Life Support	2
Basic Life Support (BLS) Certification	2
Certified Nursing Assistant	2

## **Executive Summary**

### **Overview:**

Attached is the Capital Project Status Report for the November 13-14, 2022, meeting of the Board of Trustees. The report reflects a total of 34 projects, with one project added and two removals since the last report. Note that the projects highlighted in yellow reflect current P3 projects. Additionally, projects which are at Board approval level utilizing Harold Alfond Foundation (HAF) grant and matching money are highlighted in green. HAF projects below Board approval level are noted in a separate table at the end of the report as well.

### **COVID-19 and Current Market Impacts on Capital Construction:**

Projects continue to move forward however, impacts also continue.

- Market instability is creating very difficult conditions for the bidding and estimating climate.

### **Bond Project Status Report:**

The special portion of this report calling out only projects funded with the 2018 State bonds reflects sixty (60) projects. The projects are currently estimated to account for over \$47 million of the \$49 million in voter approved general obligation bond funding. Over \$37 million of that has been expended.

Supplemental funding is being leveraged for some of these projects and the total estimated project value across all funds is nearly \$66 million, including the bond funding and other project resources.

- Eleven (11) of the active bond projects also appear on the Capital Project Status Report with approved budgets above board threshold.
- The remaining bond funded projects do not have budgets that meet the threshold for Board of Trustees consideration and are therefore not present on the Capital Projects Status Report.
- As projects are closed, they will be moved to the completed projects section on this report and will remain on the report for documenting purposes until all Bond Projects are completed. On the current report there are three projects for which Bond funding has been removed, so these will be removed from the next report.
- The Completed project section reflects nineteen (19) projects that are complete. There are another fifteen (15) projects in the active projects table listed as complete and substantially complete. These will move to the completed section once closeout is finalized.

### **Research space approvals:**

This report provides timely and appropriate disclosure of Chancellor-approved increases in University owned or occupied space when the space is for research purposes, as approved by the Board of Trustees at the January 2020 Board Meeting: none

### **Harold Alfond Foundation (HAF) Grant funded projects:**

#### **Athletics**

Work on the Softball complex project continues with completion anticipated in time for the Spring 2023 season.

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### MCECIS

The master plan report has been delivered by the design team.

### UM Ferland Engineering Education & Design Center Project:

The building was occupied prior to the start of the fall semester, with classes currently taking place. Ongoing commissioning, punch list completion and equipment installation is expected to be finished before the spring semester.

### 300 Fore Street Renovation:

Work continues on schedule with punch list inspections starting on 10/6 on the 5th Floor with other floor inspections to follow. The project is on track to receive Certificate of Occupancy prior to Thanksgiving. Non-construction related activities continue including access control install, AV install, library shelving and FF&E. Physical move-in anticipated in early January.

### USM Portland Development Projects:

#### Portland Commons

One wing of the 8-story portion of the building is weathertight, and two model units have been presented by the developer for punch list review. In the other wing of the 8-story portion activities to make the building weather tight are underway. Installation of mechanical, electrical and plumbing on these wings continues, and all windows have been installed. On the five story wings, wall panels are complete to the third floor and are expected to be complete through the fifth story by the end of August. The exterior brick veneer is 75% complete.

### Career and Student Success Center

Construction continues on schedule.

### Parking Garage

Pre-cast erection completed 10/03, now working on finishing, caulking, stairwells and mechanicals. Off-site work should be completed by 10/10. Power outage for transformer work and temporary power via generator is scheduled for mid-October.

### Center for the Arts

Construction Documents phase of design has begun. Site Review Application for the City of Portland to be submitted in January 2023. Design completion and GMP delivery anticipated for late spring final approval. Schedule subject to the Building Permit review time with the city. Ground breaking anticipated in July/August 2023.

### University of Maine Energy Center project:

Design continues with anticipated completion in summer of 2023 to be followed by pricing/bidding and construction.

### Adaptive Reuse of Coburn and Holmes Halls/Boutique Hotel project:

Ground breaking for this special initiative was held on October 1<sup>st</sup>. Work, including interior renovations and exterior utility tie-ins have begun in earnest. The hotels are projected to open in 2024.

### RFQ for Asset Development & Management Consulting Services

An initiative is underway with assistance from Strategic Procurement to solicit, by way of Request for Qualifications (RFQ), consulting services for asset development and management.

11/03/2022

The services we are looking for range from feasibility studies, market surveys and analytics, financial analysis, to any other services that can support asset development and management on the campuses. These consulting services will support engagements which will most likely take the form of P3s however the RFQ will be broad enough to include consulting services for other financing and development models that campuses would like to pursue. A draft of the RFQ is out for review and input from the campuses with the expectation to issue the RFQ this fall.

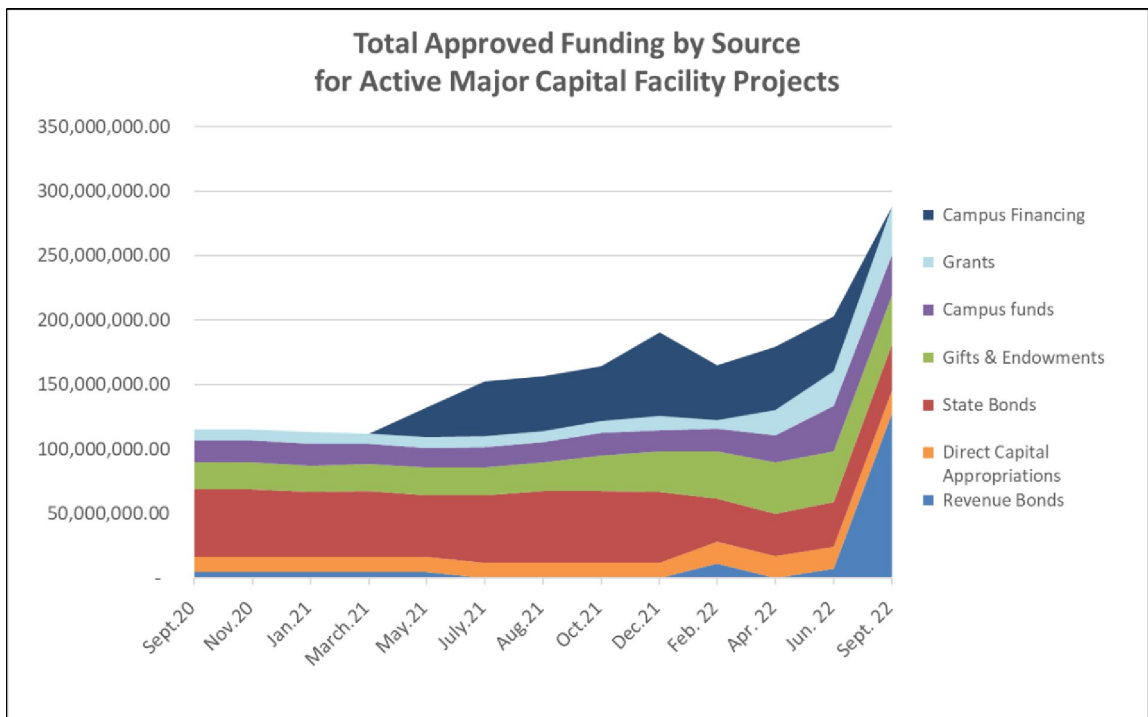
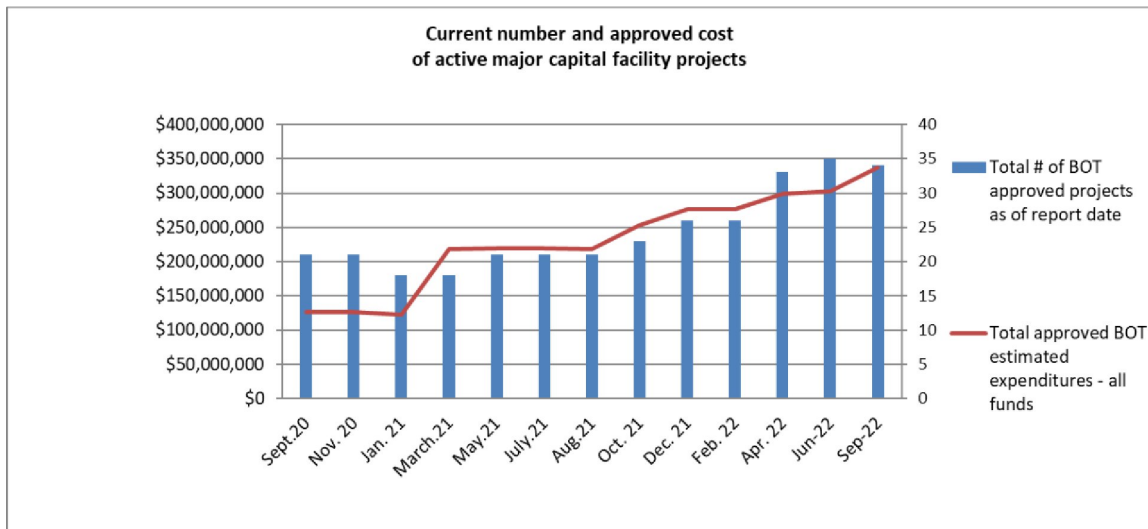
#### UMPI Solar Array

While the process of bidding, installation and commissioning of the solar field was a challenge with a large number of players and utility companies, the process of negotiating with our insurance carriers for the largest possible payout was even more daunting. We have Gretchen Catlin, Chief Facilities and General Services Officer, and Joseph Moir, Director of Facilities at the University of Maine at Presque Isle, to thank for the success of this project.

Commissioned in early September, this array is designed with two-sided panel collection (to gather reflected as well as direct sunshine). The solar array consists of 6 rows/848 modules with total projected output of 405 KW DC which translates to 300 KW AC with a projected annual output of 499,969 KWH and campus savings of approximately \$56,000 per year. For a perspective of annual university energy usage, the university reports it used 2,482,925 KWH (\$265,442) in FY2022.

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\*Direct Capital Appropriations funds consist of capital appropriations in anticipation of revenue bonding, as well as MEIF funds.

\*\* Campus Financing demonstrates the use of interim financing in the form of a Bond Anticipation Note. Bonds have now been issued reducing this category to zero for the time being.

11/03/2022

# Board of Trustees Meeting - November 2022 - Reports

## Capital Project Status Report Board Approved Projects November 2022 - Board of Trustees With Grand Totals and % of Current Approved

Campus, Project Name (Project ID)	Funding Source(s) of expenditures to date & each source's share	Status	Original Estimated Completion	Current Est. Completion	Estimates Original Approved Estimate	Current Approved Estimate	Total Expense to Date	% Expended of Current Approved Estimate	Prior Actions, Information & Notes
<b>UMA</b>									
Randall Welcome Center (1100085)	2018 State Bond (100%)	Complete	2021	2022	\$2,150,000	\$2,150,000	\$1,736,705	80.8%	Board approved \$2.15M May 2021. The approval of 1100085 in May of 2021 replaces 1100077.
Medical Laboratory Technology (1100093)	E&G(100%)	Design in Progress	2023	2023	\$1,650,000	\$1,650,000	\$33,232	2.0%	Board approved \$1,650,000 in March, 2022.
Camden Hall Vet Tech (1100095)	E&G(100%)	Construction in Progress	2023	2023	\$1,600,000	\$1,600,000	\$124,618	7.8%	Board approved \$1,600,000 in March, 2022.
**Handley Hall A/C replacement (1200029)	E&G (32%),HEERF(68%)	Design in Progress	2020	2023	\$575,000	\$1,230,000	\$81,390	6.6%	Board approved \$575K in September, 2019. Board approved \$1.2M in Emergency Relief Funds and up \$30k in E&G funds in Sept 2021.
**Katz Library HVAC Repairs (1200061)	HERFF (100%)	Construction in Progress	2021	2022	\$1,100,000	\$1,335,000	\$398,958	29.9%	Board approved \$1.1M Sept 2021. Board authorized additional \$235,000 in June 2022.

<b>UMF</b>									
Dearborn Gym HW Upgrades (2100087)	2010 State Bond (10%) 2018 State Bond (90%)	Complete	2019	2022	\$600,000	\$850,000	\$848,752	99.9%	Board approved \$600K in March, 2019. Board approved additional \$250K in May, 2019.
274 Front St Renovation (2100096)	2018 State Bond (100%)	Construction in Progress	2020	2022	\$450,000	\$3,100,000	\$365,275	11.8%	Board approved up to \$3.1M in January 2022.
**FRC Façade Replacement (2100112)	2018 State Bond (100%)	Bidding	2022	2023	\$925,000	\$925,000	\$41,161	4.4%	Board approved up to \$925,000 in May 2022.

<b>UMFK</b>									
UMFK Enrollment/Advancement Center (3100042)	2018 State Bond (100%)	Substantially Complete	2022	2022	\$3,249,000	\$3,249,000	\$2,884,156	88.8%	Board approved \$2.99M in Bond Funding, March, 2020. Plus, \$259K E&G for a total of \$3,249,000.

<b>UM</b>									
**UM Ferland Engineering, Education and Design Center (5100458, 5100493, 5100546, 5200604)	Campus Funds (3%), State Approp (27%) Gifts (25%), 2022 Revenue Bond (45%)	Substantially Complete	2024	2024	\$1,000,000	\$78,000,000	\$61,771,416	79.2%	Board approved \$1M in September, 2017. Board approved additional \$8M in May, 2018. Additional \$63M BOT approved March, 2020 Initial occupancy of this facility is expected in 2022; final completion in 2024. Board authorized up to \$78M in January 2022.
**UM Energy Center Phase II (5100516, 5100517)	Campus E&G Funds (71%) Grants (29%)	Design in Progress	2023	2023	\$5,700,000	\$5,700,000	\$895,872	15.7%	Board approved \$5.7M March, 2019.
**Neville Hall Renovations (5100534)	2018 State Bond (100%)	Substantially Complete	2021	2022	\$1,500,000	\$1,500,000	\$1,066,910	71.1%	Board approved up to \$1.5M expenditure in March 2021.
ASCC Secure Clean Lab Suite (5100560)	Grants (100%)	Design in Progress	2023	2023	\$2,451,268	\$2,451,268	\$197,604	8.1%	Board authorized \$2,451,268 in March 2022.
**Steampit SA10 (5100563)	E&G (100%)	Substantially Complete	2022	2022	\$640,000	\$640,000	\$515,528	80.6%	Board authorized \$640,000 in May 2022.
**ASCC Building Addition GEM Lab (5100579)	Grants (56% -MJRP)Operating Reserves (44%)	Design in Progress	2025	2025	\$1,500,000	\$15,300,000	\$550,363	3.6%	Board approved \$1.5M May 2021. Board authorized additional \$13.8M in August 2022.
**UM Priority 1 Athletics fields (5100593, 5100594, 5100597)	Gifts (18%) HAF Grant (82%)	Construction in Progress (5100597); Others - Hold	2023	2023	\$14,000,000	\$40,000,000	\$2,745,601	6.9%	Board authorized \$14M in January 2022. Board authorized additional \$26M in August 2022.
Relocation of Dairy Operations; Dairy Barn Demo (5100631, 5200747)	System Reserves(100%)	Design and Bidding in Progress	2023	2023	\$800,000	\$800,000	\$5,755	0.7%	Authorized by FFT at June, 2022 meeting.
**UM Adaptive Reuse project/Historic P3 (5200661)	Campus Funds- Aux and E&G Reserves (100%)	Construction in Progress	2023	2024	\$2,000,000	\$3,000,000	\$445,024	14.8%	Board authorized for UM contribution of up to \$2M in October 2021. Board authorized additional \$1M in March 2022.
**HVAC Systems & Controls Upgrades (5100558, TBD)	E&G (100%)	Pre-Design in Progress	2024	2024	\$10,000,000	\$10,000,000	\$25,006	0.3%	Board authorized up to \$10M in May 2022.

Board of Trustees Meeting - November 2022 - Reports

**Capital Project Status Report**  
**Board Approved Projects**  
**October 2022 - Finance, Facilities and Technology Committee**  
**With Grand Totals and % of Current Approved Estimates**

Campus, Project Name (Project ID)	Funding Source(s) of expenditures to date & each source's share	Status	Original Estimated Completion	Current Est. Completion	Original Approved Estimate	Current Approved Estimate	Total Expense to Date	% Expended of Current Approved Estimate	Prior Actions, Information & Notes
<b>USM</b>									
**USM Center for the Arts (6100300)	Gifts (100%)	Design in Progress	2022	2025	\$1,000,000	\$4,200,000	\$1,976,773	47.1%	Board approved \$1M in January, 2018. Board authorized an additional \$3.2M for a total of \$4.2M in November 2021.
**Bailey Hall Fire Protection and Electrical Upgrades (6100316, 6100323)	2018 State Bond (35%), Campus E&G (65%)	Complete	2019	2022	\$2,580,000	\$4,388,000	\$4,157,375	94.7%	Board approved \$2.58M in January, 2019. Additional authorization of \$1,808,000 for a total of \$4,388,000 in January 2020.
Career and Student Success Center and Portland Residence Hall (6100325, 6100338)	2018 State Bond (28%), 2022 Revenue Bond (72%)	Construction in Progress	2020	2023	\$1,000,000	\$100,600,000	\$58,104,001	57.8%	Board approved \$1M in January, 2019. Board approved predevelopment expenditures of up to \$5.7M combined for the two projects in January 2020. Board approved an increase by \$93.7M in February 2021. Chancellor approved additional \$1.2M for Res. Hall in June, 2022.
Structured Parking Garage (6100331)	Campus E&G Funds (1%), 2022 Revenue Bond (99%)	Construction in Progress	2022	2023	\$1,200,000	\$23,500,000	\$11,981,623	51.0%	Board approved in March 2020 with initial spending limit of \$400,000; addtl \$800,000 authorized by the Chancellor and VCFA and Treasurer in April, 2021. Board authorized a new total of \$23m in November, 2021. Chancellor approved additional \$0.5M in June, 2022.
**Academy Building Renovation (6100332)	Campus E&G Funding (100%)	Construction in Progress	2022	2023	\$800,000	\$800,000	\$250,946	31.4%	Authorized by FFT at June, 2022 meeting.
**USM Dubyak Center (6100342)	Gifts (20%), 2018 State Bond(80%)	Bidding	2022	2023	\$2,500,000	\$2,500,000	\$150,415	6.0%	Board approved up to \$2.5 million in January, 2022. \$1M of bond funds to cover the total \$2.5m project budget. Addtl \$1.5M funding is from Maine Jobs Recovery funds.
***USM Steam Line (6100361)	Campus E&G Funds (100%)	Complete	2021	2021	\$600,000	\$600,000	\$599,932	100.0%	Board approved \$600K in May 2021.
Hannaford Field Turf Repl (6100362)	E&G (100%)	Substantially Complete	2022	2022	\$900,000	\$900,000	\$756,939	84.1%	Board approved up to \$900,000 in March 2022.
**Fitness Equipment Purchase and Space Renovation USM Gorham Costello Gym Reno (6100370), Sullivan Gym Equip Repl (6100371), LAC Gym Equip Repl (6200295)	Campus E&G Funds (100%)	Substantially Complete	2020	2022	\$700,000	\$770,000	\$690,164	89.6%	Board Approved March, 2020. No expenditures as of yet. An increase of \$70k was authorized by the Chancellor to \$770k in December 2021.
USM IPE Lab (6200286)	Gifts (100%)	Construction in Progress	2022	2022	\$482,000	\$980,000	\$279,483	28.5%	Board approved up to \$900,000 in January 2022. Chancellor approved additional \$80,000 in June 2022.
<b>UMPI</b>									
UMPI Solar Array (7100023)	Campus E&G (100%)	Substantially Complete	2020	2022	\$700,000	\$1,144,240	\$971,090	84.9%	Board approved \$700K June, 2020. Board approved an increase to \$1,144,240 during the August 2021 Executive Committee.
Wieden Renovation Bond (7100025)	2018 State Bonds (97%), Gifts(3%)	Construction in Progress	2020	2023	\$3,757,000	\$7,652,280	\$3,142,049	41.1%	Board approved \$3.7M May 2021. Board approved an addtl \$2.5 million Jan 2022. Bond funded portion remains at \$3,757,000. Board authorized additional \$1,395,280 in May 2022.
Folsom 105 Nursing Renovation (7100026)	2018 State Bonds (100%)	Complete	2020	2022	\$800,000	\$760,000	\$719,300	94.6%	Board approved \$800K March, 2020. Budget reduced by \$40K due to funds to Wieden Renovation.
*Park Hall (7100029)	State Appropriation (100%)	Design in Progress	2023	2023	\$662,000	\$662,000	\$228	0.0%	Board approved \$662,000 at June 2022 FFT meeting.
<b>UMS/Law School</b>									
**300 Fore St Portland Renovation (8100152)	Gifts (80%), E&G(20%)	Construction in Progress	2022	2022	\$6,000,000	\$13,827,396	\$7,412,300	53.6%	Board approved \$6M September 2021. Board approved increase to \$11.5M in Jan '22. Board authorized additional \$1,327,396 in March 2022. Board authorized \$1m additional in June '22.

Board of Trustees Meeting - November 2022 - Reports

**Capital Project Status Report**  
**Board Approved Projects**  
**October 2022 - Finance, Facilities and Technology Committee**  
**With Grand Totals and % of Current Approved Estimates**

Campus, Project Name (Project ID)	Funding Source(s) of expenditures to date & each source's share	Status	Original Estimated Completion	Current Est. Completion	Original Approved Estimate	Current Approved Estimate	Total Expense to Date	% Expended of Current Approved Estimate	Prior Actions, Information & Notes
HAF projects which are currently below board level									
Campus, Project Name (Project ID)	Funding Source(s) of expenditures to date & each source's share	Status	Original Estimated Completion	Current Est. Completion	Total Expense to Date	Prior Actions, Information & Notes			
UM - Engineering Ph III - MCECIS Master Planning (5200692)	HAF Grant/HAF Match (100%)	Pre-Design	TBD	TBD	488,348.48	HAF Funded project. Below Board level.			
UM - HAF Athletics Master Plan (5200696)	HAF Grant/HAF Match (100%)	Pre-Design	TBD	TBD	288,710.60	HAF Funded project. Below Board level.			
UM - Morse field Turf Replacement (5100559)	Campus Funds (59%) Gifts (41%)	Complete	2021	2021	445,516.76	HAF Funded project. Below Board level.			
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. Highlighted: Board level HAF and P3 Projects	Funding source(s) reflects primary source(s) for project.		Calendar Year unless otherwise noted.				Percentage expended reflects total expended as of September 30, 2022 as a percentage of the current approved project estimate.		

**Bond Project Status Report**  
**Active Bond Projects**  
**November 2022 - Board of Trustees**  
**With Grand Totals and % of Current Approved Estimates**

Campus, Project Name (Project ID)	Status	Original Estimated Completion	Current Est. Completion	Funding Source(s) of expenditures to date & each source's share	Estimated Bond Funding for Project	Bond Funding Expended	Total Estimated Project Cost	Prior Actions, Information & Notes
<b>UMA</b>								
Randall 2nd Floor Renovations (1100083)	Construction in Progress	2021	2022	Bond (100%)	\$100,000	\$77,355	\$100,000	
Randall Welcome Center (1100085)	Complete	2021	2022	Bond (100%)	\$1,750,000	\$1,736,705	\$2,150,000	Board approved \$2.15M May 2021. The approval of 1100085 in May of '21 replaces 1100077.
Bangor Campus Welcome Center (1100534)	Complete	2021	2022	Bond (95%) E&G (5%)	\$475,000	\$460,416	\$498,821	
ACC Nursing Upgrades (1200082)	Complete	2022	2022	Bond (94%) E&G (6%)	\$50,000	\$38,971	\$59,000	
**Randall Admissions Renovations (1200083)	Construction in Progress	2021	2023	Bond (92%) E&G (8%)	\$154,096	\$22,088	\$284,095	
<b>Total Bond for Campus</b>					<b>\$2,529,096</b>	<b>\$2,335,536</b>	<b>\$3,091,916</b>	
<b>UMF</b>								
Dearborn Gym Hot Water Upgrades (2100087)	Complete	2019	2022	Bond (90%) Energy Bond (10%)	\$848,752	\$764,755	\$848,752	Board approved \$600k in March 2019. Board approved additional \$250k in May 2019.
Stone Hall Renovations (2100095)	Complete	2019	2022	Bond (100%)	\$200,000	\$181,117	\$200,000	
274 Front St Renovation (2100096)	Construction in Progress	2020	2023	Bond 100%	\$1,400,000	\$362,886	\$3,100,000	Board approved up to \$3.1M in January 2022. \$1.4m in 2018 bonds, the remaining is from gifts, Maine Jobs Recovery Act funds and other congressional earmarks.
Olsen Center Renovations (2100102)	Design in Progress	2023	2023	Bond (100%)	\$300,000	\$80,670	\$300,000	
Mantor Library Renovations (2100103)	Complete	2021	2022	Bond (100%)	\$300,000	\$267,316	\$300,000	
Campus ADA Ramps (2100104)	Construction in Progress	2021	2022	Bond (100%)	\$100,000	\$31,379	\$100,000	
Roberts HVAC Upgrade (2100106)	Design in Progress	2021	2022	Bond (100%)	\$150,000	\$60,661	\$150,000	
Merrill Hall HVAC Upgrade (2100107)	Design Complete	2021	2022	Bond (100%)	\$50,000	\$35,127	\$50,000	
Ricker Addition Renovation (2100108)	Design in Progress	2021	2022	Bond (100%)	\$175,000	\$55,619	\$175,000	
Scott North Renovation (2100109)	Complete	2021	2022	Bond (100%)	\$98,605	\$98,605	\$98,605	
Scott West Renovation (2100110)	Construction in Progress	2021	2022	Bond (100%)	\$175,000	\$57,341	\$175,000	
FRC Roof Replacement (2100111)	Construction in Progress	2021	2022	Bond (100%)	\$325,000	\$299,950	\$300,000	
**FRC Façade Replacement (2100112)	Bidding	2022	2023	Bond (100%)	\$925,000	\$41,161	\$925,000	Board approved up to \$925,000 in May 2022.

**Bond Project Status Report**  
**Active Bond Projects**  
**October 2022 - Finance, Facilities, and Technology Committee**  
**With Grand Totals and % of Current Approved Estimates**

Campus, Project Name (Project ID)	Status	Original Estimated Completion	Current Est. Completion	Funding Source(s) of expenditures to date & each source's share	Estimated Bond Funding for Project	Bond Funding Expended	Total Estimated Project Cost	Prior Actions, Information & Notes
<b>UMF</b>								
Security Camera&Phone Install (2100015)				Bond (100%)	\$100,000	\$0	\$100,000	
Lockwood Hall Heat Conversion (2100016)				Bond (100%)	\$465,000	\$0	\$465,000	
Exterior Painting Merrill Hall (2200096)	Design in Progress	2020	2022	Bond (100%)	\$450,000	\$46,896	\$450,000	
***Mallet Front Porch Painting (2200103)	Complete	2021	2021	E&G (100%)	\$0	\$0	\$0	Funding for this project is now from E&G, so the project will be removed from the list.
***UMF Purington Front Porch Painting (2200104)	Complete	2021	2021	E&G (100%)	\$0	\$0	\$0	Funding for this project is now from E&G, so the project will be removed from the list.
***UMF Preble/Ricker Flooring (2200105)	Complete	2021	2021	E&G (100%)	\$0	\$0	\$0	Funding for this project is now from E&G, so the project will be removed from the list.
Stone Hall Suite Conversion (2200109)	Construction in Progress	2022	2022	Bond (100%)	\$275,000	\$51,749	\$275,000	
<b>Total Bond for Campus</b>					<b>\$6,337,357</b>	<b>\$2,435,233</b>	<b>\$8,012,357</b>	
<b>UMFK</b>								
UMFK Enrollment/Advancement Center (3100042)	Substantially Complete	2022	2023	Bond (100%)	\$2,990,000	\$2,884,156	\$3,249,000	Board approved \$2.99M in Bond Funding, March, 2020. Plus, \$259K for a total of \$3,249,000.
<b>Total Bond for Campus</b>					<b>\$2,990,000</b>	<b>\$2,884,156</b>	<b>\$3,249,000</b>	
<b>UM</b>								
UMM Reynolds Renewal (4100047)	Complete	2021	2022	Bond (100%)	\$320,475	\$320,475	\$320,475	
UMM Dorward Hall Roofing (4200048)	Construction in Progress	2021	2022	Bond (100%)	\$45,000	\$32,939	\$45,000	
Neville Hall Renovation (5100534)	Construction in Progress	2021	2022	Bond (100%)	\$1,500,000	\$1,066,910	\$1,500,000	Board approved up to \$1.5M expenditure in March 2021.
R-UMM Science Bldg Reno (5100581)	Pre-design in Progress	2022	2023	Bond (100%)	\$50,000	\$8,260	\$50,000	
R-Dorward Hall Access Upgrade (5100596)	Construction in Progress	2022	2022	Bond (100%)	\$187,111	\$133,276	\$187,111	
R-UMM O'Brien ADA Access Ramp (52000741)	Pre-design in Progress	2022	2022	Bond (100%)	\$50,000	\$0	\$50,000	
<b>Total Bond for Campus</b>					<b>\$2,152,586</b>	<b>\$1,561,860</b>	<b>\$2,152,586</b>	

**Bond Project Status Report**  
**Active Bond Projects**  
**October 2022 - Finance, Facilities, and Technology Committee**  
**With Grand Totals and % of Current Approved Estimates**

Campus, Project Name (Project ID)	Status	Original Estimated Completion	Current Est. Completion	Funding Source(s) of expenditures to date & each source's share	Estimated Bond Funding for Project	Bond Funding Expended	Total Estimated Project Cost	Prior Actions, Information & Notes
<b>USM</b>								
**Bailey Hall Fire Protection and Electrical Upgrades (6100316, 6100323)	Complete	2019	2022	Bond (39%) E&G (61%)	\$1,460,000	\$1,460,000	\$4,388,000	Board approved \$2.58M in January, 2019. Board approved additional \$1.808M in January, 2020.
Career and Student Success Center (6100325)	Construction in Progress	2022	2023	Bond (100%) Gifts (0%)	\$19,000,000	\$16,335,586	\$26,551,000	Board approved \$1M in January, 2019. Board approved predevelopment expenditures of up to \$5.7M combined with the residence hall project in January 2020. Board approved an increase by \$93.7M in February 2021, of that amount, the specific budget for the CSSC is \$26.6M.
Nursing Simulation Lab Science (6100327)	Complete	2021	2022	Bond (100%)	\$1,500,000	\$1,407,323	\$1,500,000	Board approved \$1.5M in January, 2020.
**USM Dubyak Center (6100342)	Bidding	2022	2022	Bond (80%) Gifts (20%) Grants (0%)	\$1,000,000	\$119,947	\$2,500,000	Board approved up to \$2.5 million in January, 2022. \$1M of bond funds to cover the total \$2.5m project budget. Addtl \$1.5M funding is from Maine Jobs Recovery funds.
Upper Class Pipe Insul Replmnt (6100366)	Construction in Progress	2022	2022	Bond (100%)	\$112,584	\$30,737	\$112,584	
LAC Deferred Maint Projects (6100367)	Construction in Progress	2022	2022	Bond (100%)	\$300,000	\$24,192	\$300,000	
Upper Class Hall Online Locks (6100369)	Construction in Progress	2022	2022	Bond (100%) E&G (0%)	\$379,021	\$246,507	\$399,021	
<b>Total Bond for Campus</b>					<b>\$23,751,605</b>	<b>\$19,624,291</b>	<b>\$35,750,605</b>	
<b>UMPI</b>								
Wieden Renovation Bond (7100025)	Construction in Progress	2020	2023	Bond (97%) Gifts (3%)	\$3,757,000	\$3,041,023	\$7,652,280	Board approved \$3.7M May 2021. Board approved an addtl \$2.5 million Jan 2022. Bond funded portion remains at \$3,757,000. Board authorized additional \$1,395,280 in May 2022.
Folsom 105 Nursing Renovation (7100026)	Complete	2020	2023	Bond (100%)	\$760,000	\$719,300	\$760,000	Board approved \$800K March, 2020. Reduced by \$40K to allow Wieden funding.
<b>Total Bond for Campus</b>					<b>\$4,517,000</b>	<b>\$3,760,323</b>	<b>\$8,412,280</b>	
<b>Totals:</b>					<b>\$42,277,645</b>	<b>\$32,601,398</b>	<b>\$60,668,744</b>	

**Bond Project Status Report****Active Bond Projects****October 2022 - Finance, Facilities, and Technology Committee****With Grand Totals and % of Current Approved Estimates**

Campus, Project Name (Project ID)	Status	Original Estimated Completion	Current Est. Completion	Funding Source(s) of expenditures to date & each source's share	Estimated Bond Funding for Project	Bond Funding Expended	Total Estimated Project Cost	Prior Actions, Information & Notes
<b>Completed Bond Projects</b>								
Augusta Campus Welcome Center (1100077)	Closed	2021	2021	Bond (100%)	\$350,388	\$350,388	\$350,388	UMA
Randall Center Student Lounge (1100084)	Complete	2021	2022	Bond (100%)	\$143,675	\$143,675	\$143,675	UMA
Jewett Hall Boiler Design Work (1200062)	Complete	2021	2021	Bond (100%)	\$305,000	\$321,287	\$321,287	UMA
274 Front St Acquisition (2100089)	Complete	2019	2019	Bond (100%)	\$850,820	\$850,820	\$850,820	UMF
Scott Hall Renovations (2100092)	Complete	2019	2022	Bond (100%)	\$193,660	\$193,660	\$193,660	UMF
Dakin Hall Shower Renovations (2100093)	Complete	2019	2022	Bond (100%)	\$95,707	\$95,707	\$95,707	UMF
Lockwood Hall Shower Renovations (2100094)	Complete	2019	2022	Bond (100%)	\$87,103	\$87,103	\$87,103	UMF
UMF Campus Paving (2100097)	Complete	2019	2019	Bond (100%)	\$97,338	\$97,338	\$97,338	UMF
FRC Floor Renovation (2100098)	Complete	2019	2019	Bond (100%)	\$209,503	\$209,503	\$209,503	UMF
Scott South Renovations (2200102)	Complete	2022	2022	Bond (100%)	\$132,222	\$132,222	\$132,222	UMF
Dakin Flooring, Ceiling, Light (2100105)	Complete	2021	2021	Bond (100%)	\$206,187	\$206,187	\$206,187	UMF
UMM Science Building Roof Replacement (4100042)	Complete	2020	2020	Bond (100%)	\$280,487	\$280,487	\$280,487	UMM
UMM Dorward Hall Roof Replacement (4100043)	Complete	2020	2020	Bond (100%)	\$296,092	\$296,092	\$296,092	UMM
UMM Sennett Roof Replacement (4100044)	Complete	2020	2020	Bond (100%)	\$201,257	\$201,257	\$201,257	UMM
UMM Reynolds Center Roof Repair (4200044)	Complete	2020	2020	Bond (100%)	\$154,226	\$154,226	\$154,226	UMM
UMM Site Work (4200045)	Complete	2020	2020	Bond (100%)	\$57,365	\$57,365	\$57,365	UMM
**UMM Science Bldg Rm 010 Renovation (5100575)	Complete	2021	2022	Bond (100%)	\$100,885	\$100,885	\$100,885	UMM
Woodward Hall Renovations (6100301)	Complete	2019	2019	Bond (86%) E&G (14%)	\$1,008,395	\$1,008,395	\$1,172,840	USM
Ricci Lecture Hall Renovations (6100308)	Complete	2019	2020	Bond (31%) Gifts (43%), E&G (26%)	\$172,010	\$172,010	\$564,197	USM
<b>Totals:</b>					<b>\$4,942,320</b>	<b>\$4,958,607</b>	<b>\$5,515,239</b>	
<b>GRAND Total (Active and Completed Projects)</b>					<b>\$47,219,965</b>	<b>\$37,560,005</b>	<b>\$66,183,984</b>	
Explanatory Notes: * Project is new as of this report. ** Details of this project include updates since the last report. Completed projects will remain on this report unless otherwise specified. *** Projects will be removed from the report.	Funding source(s) reflects primary source(s) for project.	Calendar Year unless otherwise noted.					Bond Funding expended reflects total expended as of September 30, 2022.	



**Academic and Student Affairs Committee of the Board – 2022-2023 Work Plan\*\***

<b>August ASA</b>		
<b>Date</b>	<b>Agenda Items</b>	<b>Materials Due to BOT Office Date</b>
August 22, 2022	Discussion: Faculty Initiated Dialogue	8/10/2022
9:00am - 12:00pm	Discussion: Student Representative Initiated Dialogue	
Virtual via Zoom	Discussion: Review of 2022-2023 ASA Workplan	
	Update: Enrollment	
	Action: Program Proposals	

<b>September BOT</b>		
<b>Date</b>	<b>Agenda Items</b>	<b>Materials Due to BOT Office Date</b>
September 11-12, 2022	Action: Program Proposals	8/25/2022
University of Maine at Presque Isle		Info Item to BOT Due: ASA Workplan for 2022-23

<b>October ASA</b>		
<b>Date</b>	<b>Agenda Items</b>	<b>Materials Due to BOT Office Date</b>
October 24, 2022	Discussion: Faculty Initiated Dialogue	10/12/2022
9:00am - 12:00pm	Discussion: Student Representative Initiated Dialogue	Info Item to BOT Due: Academic Calendar '27-28, '28-29
Virtual via Zoom	Update: Enrollment	
	Update: Faculty Governance	
	Update: Unified Accreditation	
	Update: New Academic Programs	
	Action: Program Proposals	
	Awarding of Academic Degrees (Annual)	

**Academic and Student Affairs Committee of the Board – 2022-2023 Work Plan\*\***

<b>November BOT</b>		
<b>Date</b>	<b>Agenda Items</b>	<b>Materials Due to BOT Office Date</b>
November 13-14, 2022	Action: Program Proposals	10/27/2022
University of Maine at Farmington	Action: Awarding of Academic Degrees (consent agenda)	Info Item to BOT Due: Academic Calendar

<b>January ASA</b>		
<b>Date</b>	<b>Agenda Items</b>	<b>Materials Due to BOT Office Date</b>
January 9, 2023	Discussion: Faculty Initiated Dialogue	12/21/2022
9:00am - 12:00pm	Discussion: Student Representative Initiated Dialogue	
Virtual via Zoom	Update: Faculty Governance	
	Update: Enrollment	
	Update: Unified Accreditation	
	Update: New Academic Programs	
	Action: Program Proposals	

<b>January BOT</b>		
<b>Date</b>	<b>Agenda Items</b>	<b>Materials Due to BOT Office Date</b>
January 29-30, 2023	Action: Program Proposals	1/12/23
University of Maine at Augusta		Info Item to BOT Due: Fall Enrollment Report

<b>February ASA</b>		
<b>Date</b>	<b>Agenda Items</b>	<b>Materials Due to BOT Office Date</b>

**Academic and Student Affairs Committee of the Board – 2022-2023 Work Plan\*\***

February 27, 2023	Discussion: Faculty Initiated Dialogue	2/15/2022
9:00am - 12:00pm	Discussion: Student Representative Initiated Dialogue	
Virtual via Zoom	Update: Faculty Governance	
	Update: Enrollment	
	Update: Unified Accreditation	
	Update: New Academic Programs	
	Action: Program Proposals	
	Review and Recommendations: Tenure Nominations (Joint with HR/LR Committee)	
	AAPR: Provost Presentations	

March BOT		
Date	Agenda Items	Materials Due to BOT Office Date
March 26-27, 2023	Action: Program Proposals	3/9/2023
University of Maine	Tenure Recommendations	Info Item to BOT Due: Student Financial Aid Report
		Info Item to BOT Due: Spring Enrollment Report

April ASA		
Date	Agenda Items	Materials Due to BOT Office Date
April 24, 2023	Discussion: Faculty Initiated Dialogue	4/12/2023
9:00am - 12:00pm	Discussion: Student Representative Initiated Dialogue	
Virtual via Zoom	Update: Enrollment	
	Update: Faculty Governance	
	Update: Unified Accreditation	
	Update: New Academic Programs	

**Academic and Student Affairs Committee of the Board – 2022-2023 Work Plan\*\***

	Action: Program Proposals	
	AAPR: Provost Presentations	

May BOT		
Date	Agenda Items	Materials Due to BOT Office Date
May 21-22, 2023	Action: Program Proposals	5/5/2023
University of Maine at Fort Kent		

June ASA		
Date	Agenda Items	Materials Due to BOT Office Date
June 12, 2023	Discussion: Faculty Initiated Dialogue	6/1/2023
9:00am - 12:00pm	Discussion: Student Representative Initiated Dialogue	
Virtual via Zoom	Update: Enrollment	
	Update: Unified Accreditation	
	Update: New Academic Programs	
	Action: Program Proposals	
	AAPR: Provost Presentations	

July BOT		
Date	Agenda Items	Materials Due to BOT Office Date
July 10, 2023	Action: Program Proposals	6/24/2023
TBD		Info Item to BOT Due: Chairs & Professorships FY2023

\*\*This work plan is draft and will be updated based on topics to be added by the VCAA's Office. Other topics will be added as needed or required for decision-making. The work plan will be

**Academic and Student Affairs Committee of the Board – 2022-2023 Work Plan\*\***

updated as the Faculty and Student Representatives present their individual items. Items in red are action items.

University of Maine System  
Board of Trustees

**Audit Committee  
Work Plan FY2023**

**Late October Meeting Agenda:**

1. UM Department of Athletics Agreed-Upon Procedures Report
2. Presentation of the Annual Financial Report (audited financial statements)
3. External auditor report including required communications letter, executive summary of financial statement audit results, and discussion of emerging accounting issues

**May Meeting Agenda:**

1. Review Single Audit Report
2. External auditor summary of federal compliance Single Audit results
3. External auditor discussion of required communications, audit planning for the next fiscal year, and emerging accounting issues
4. UM Department of Athletics Agreed-Upon Procedures Report
5. Enterprise Risk Management update

*Other meetings and agenda items scheduled as needed.*

**University of Maine System 2027 – 2028 Academic Calendar – DRAFT**

## Fall Semester 2027

Event	UM	UMA	UMF	UMFK	UMM	UMPI	USM	UM Law School
Orientation								Aug 2
Classes Begin	Aug 30	Aug 30	Aug 30	Aug 30	Aug 30	Aug 30	Aug 30	Aug 30
Labor Day Holiday	Sep 6	Sep 6	Sep 6	Sep 6	Sep 6	Sep 6	Sep 6	Sep 6
Fall Break	Oct 11-12	Oct 11-12	Oct 11-12	Oct 11-12	Oct 11-12	Oct 11-12	Oct 11-12	Oct 11
Veterans Day Holiday	Nov 11	Nov 11	Nov 11	Nov 11	Nov 11	Nov 11	Nov 11	Nov 11
Thanksgiving Recess	Nov 24-28	Nov 24-28	Nov 24-28	Nov 24-28	Nov 24-28	Nov 24-28	Nov 24-28	Nov 24-28
Classes End	Dec 10	Dec 10	Dec 10	Dec 10	Dec 10	Dec 10	Dec 10	Dec 3
Final Exams	Dec 13-17	Dec 13-17	Dec 13-16	Dec 13-16	Dec 13-17	Dec 13-16	Dec 11-17	Dec 9 – 21
Degree Conferral	Dec 17	Dec 17	Dec 16	Dec 16	Dec 17	Dec 16	Dec 17	Dec 21

## Winter Session 2027/2028

Event	UM	UMA	UMF	UMFK	UMM	UMPI	USM	UM Law School
Classes Begin	Dec 27	Dec 27	Dec 27	Dec 27	Dec 27	Dec 27	Dec 20	
Classes End	Jan 14	Jan 14	Jan 14	Jan 14	Jan 14	Jan 14	Jan 14	

## Spring Semester 2028

Event	UM	UMA	UMF	UMFK	UMM	UMPI	USM	UM Law School
Orientation								
Classes Begin	Jan 18	Jan 18	Jan 18	Jan 18	Jan 18	Jan 18	Jan 18	Jan 18
Presidents' Day Holiday	Feb 21	Feb 21	Feb 21	Feb 21	Feb 21	Feb 21	Feb 21	Feb 21
Spring Break	Mar 13-19	Mar 13-19	Mar 13-19	Mar 13-19	Mar 13-19	Mar 13-19	Mar 13-19	Mar 13-19
Classes End	Apr 28	Apr 28	Apr 28	Apr 28	Apr 28	Apr 28	Apr 28	Apr 25
Final Exams	May 1-5	May 1-5	May 1-4	May 1-4	May 1-5	May 1-4	Apr 29 - May 5	May 1-11
Degree Conferral	May 5	May 5	May 4	May 4	May 5	May 4	May 5	May 11
Commencement	May 6	May 6	May 6	May 6	May 5	May 6	May 6	May 20

## Summer Term 2028:

Event	UM	UMA	UMF	UMFK	UMM	UMPI	USM	UM Law School
Classes Begin	May 8	May 8	May 8	May 8	May 8	May 8	May 15	May 22
Classes End	Aug 18	Aug 18	Aug 18	Aug 18	Aug 18	Aug 18	Aug 18	Jul 20
Degree Conferral	Aug 18	Aug 18	Aug 18	Aug 18	Aug 18	Aug 18	Aug 18	Jul 20

The following holidays are observed during Summer Term:

- Memorial Day
- Juneteenth
- Independence Day

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Each Semester has the minimum of 68 class days not counting finals.

### ***Short Session Courses***

With the exception of national holidays, any additional breaks or holiday observances will be at the discretion of the instructor.

### ***Religious and Cultural Observances***

Our faculty, staff, and students are from varied religious and cultural backgrounds which serve to enrich and strengthen our community. Any event scheduled on a major religious or cultural holiday can send a message of insensitivity or exclusivity to staff and students who cannot participate that day due to their religious beliefs. Therefore, please avoid scheduling important meetings, exams, or other essential events on such dates whenever possible to accommodate the observance of religious traditions for those staff and students who need to be absent for religious holidays throughout the year. Some information about major religious holidays may be found at the [University of Maine System Human Resources page](#). An extensive listing is online at the [Interfaith Calendar website \(External Site\)](#).



**University of Maine System 2028 – 2029 Academic Calendar – DRAFT**

## Fall Semester 2028

Event	UM	UMA	UMF	UMFK	UMM	UMPI	USM	UM Law School
Orientation								Aug 23-25
Classes Begin	Aug 28	Aug 28	Aug 28	Aug 28	Aug 28	Aug 28	Aug 28	Aug 28
Labor Day Holiday	Sep 4	Sep 4	Sep 4	Sep 4	Sep 4	Sep 4	Sep 4	Sep 4
Fall Break	Oct 9-10	Oct 9-10	Oct 9-10	Oct 9-10	Oct 9-10	Oct 9-10	Oct 9-10	Oct 9
Veterans Day Holiday (observed)	Nov 10	Nov 10	Nov 10	Nov 10	Nov 10	Nov 10	Nov 10	Nov 10
Thanksgiving Recess	Nov 22-26	Nov 22-26	Nov 22-26	Nov 22-26	Nov 22-26	Nov 22-26	Nov 22-26	Nov 22-26
Classes End	Dec 8	Dec 8	Dec 8	Dec 8	Dec 8	Dec 8	Dec 8	Dec 1
Final Exams	Dec 11-15	Dec 11-15	Dec 11-14	Dec 11-14	Dec 11-15	Dec 11-14	Dec 9-15	Dec 7-19
Degree Conferral	Dec 15	Dec 15	Dec 14	Dec 14	Dec 15	Dec 14	Dec 15	Dec 19

## Winter Session 2028/2029

Event	UM	UMA	UMF	UMFK	UMM	UMPI	USM	UM Law School
Classes Begin	Dec 26	Dec 26	Dec 26	Dec 26	Dec 26	Dec 26	Dec 18	
Classes End	Jan 12	Jan 12	Jan 12	Jan 12	Jan 12	Jan 12	Jan 12	

## Spring Semester 2029

Event	UM	UMA	UMF	UMFK	UMM	UMPI	USM	UM Law School
Orientation								
Classes Begin	Jan 16	Jan 16	Jan 16	Jan 16	Jan 16	Jan 16	Jan 16	Jan 16
Presidents' Day Holiday	Feb 19	Feb 19	Feb 19	Feb 19	Feb 19	Feb 19	Feb 19	Feb 19
Spring Break	Mar 12-18	Mar 12-18	Mar 12-18	Mar 12-18	Mar 12-18	Mar 12-18	Mar 12-18	Mar 12-18
Classes End	Apr 27	Apr 27	Apr 27	Apr 27	Apr 27	Apr 27	Apr 27	Apr 24
Final Exams	Apr 30-May 4	Apr 30-May 4	Apr 30-May 3	Apr 30-May 3	Apr 30-May 4	Apr 30-May 3	Apr 28-May 4	Apr 30-May 10
Degree Conferral	May 4	May 4	May 3	May 3	May 4	May 3	May 4	May 10
Commencement	May 5	May 5	May 5	May 5	May 4	May 5	May 5	May 19

## Summer Term 2029:

Event	UM	UMA	UMF	UMFK	UMM	UMPI	USM	UM Law School
Classes Begin	May 7	May 7	May 7	May 7	May 7	May 7	May 14	May 21
Classes End	Aug 18	Aug 18	Aug 18	Aug 18	Aug 18	Aug 18	Aug 18	Jul 19

Degree Conferral	Aug 18	Aug 18	Aug 18	Aug 18	Aug 18	Aug 18	Aug 18	Jul 19
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The following holidays are observed during Summer Term:

- Memorial Day
- Juneteenth
- Independence Day

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Each Semester has the minimum of 68 class days not counting finals.

### ***Short Session Courses***

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**University of Maine System  
Management Group Appointments/Changes  
Board of Trustees Meeting November 2022**

Campus	Name	Position Title	Effective Date	Prior Salary	New Salary	Previous Position Title	Notes
LAW	Dmitry Bam	Vice Dean/Provost of Maine Law	7/1/2022	\$137,917	\$161,614	Vice Dean/Provost of Maine Law	Equity Increase
SWS	Gretchen Catlin	Chief Facilities and General Services Officer	9/6/2022	\$116,381	\$175,000	Director of Risk Management and Real Estate	New Appointment
SWS	Kelly Sparks	Vice President for Finance and Administration and Chief Business Officer - UM	9/12/2022		\$225,000		New Hire
UM	Daisy Singh	Dean of Libraries	7/1/2022		\$175,000		New Hire
UM	Hannah Carter	Associate Provost for Online and Continuing Education and Dean of Cooperative Extension	10/11/2022	\$163,668	\$182,489	Dean of Cooperative Extension	New Appointment
UM	Jason Harkins	Executive Dean of the MBS	7/1/2022	\$166,409	\$166,409	Associate Dean of the MBS	New Appointment; \$24,000 Stipend
UM	Samantha Hegmann	Interim Athletics Director	7/1/2022	\$75,017	\$195,000	Associate Athletic Director for Compliance/SWA	New Appointment
UMA	Jennifer Davis	Dean of Students	10/11/2022	\$63,334	\$90,000	Director of the Center for Student Support and Development	New Appointment
UMF	Joseph McDonnell	Interim President	9/1/2022	\$139,359	\$210,000	Professor of Public Policy	New Appointment
USM	Adam Tuchinsky	Interim Vice President of Student Affairs and Vice Provost for Academic Affairs	8/16/2022	\$167,151	\$167,151	Vice Provost for Academic Affairs	New Appointment; \$33,430 Stipend
USM	Dominic Barraclough	Interim Provost and Vice President of Academic Affairs	8/16/2022	\$136,188	\$136,188	Dean of College of Arts, Humanities and Social Sciences	New Appointment; \$27,238 Stipend
USM	Gina Guadagnino	Chief of Staff & Executive Director, Public Affairs	10/17/2022		\$125,000		New Hire



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Dannel P. Malloy  
Chancellor

October 26, 2022

To: Ellen N. Doughty, Clerk of the Board  
From: Dannel P. Malloy, Chancellor  
Subject: Boards of Visitors Annual Reports

The University of Maine

The University of Maine System is required to include as a part of the annual report to the Joint Standing Committee on Education and Cultural Affairs the annual reports of the activities of the various Boards of Visitors.

University of Maine  
at Augusta

University of Maine  
at Farmington

The general format and reporting year of September to August is consistent with past years and was mutually agreed upon by the Presidents. The annual reports from all universities within the University of Maine System, with the exception of the University of Maine School of Law which does not have a Board of Visitors, are attached for submission to the Board of Trustees as an information item with the November Board meeting materials.

University of Maine  
at Fort Kent

University of Maine  
at Machias

Please reach out with any questions you may have.

University of Maine  
at Presque Isle

University of  
Southern Maine

Encl.

University of Maine  
School of Law



Board of Visitors  
University of Maine  
Annual Report  
Academic Year – September 2021 to August 2022

### **Overview**

Chair, Philip Hamilton and Vice Chair, Michael Bourque and members of the University of Maine Board of Visitors Executive Committee engaged the University of Maine Board of Visitors (BOV) during the 2021-2022 year in substantive discussions regarding initiatives, challenges, concerns and opportunities that impact the University of Maine. The BOV, President and members of the Cabinet met monthly for campus updates.

For 2021-2022, the University of Maine Board of Visitors focused on BOV engagement on issues related to the pandemic and the university's plans for resilience and evolution in a changing world. Themes included economic development, innovation, R1 status, UMS TRANSFORMS, fundraising, and budgetary and enrollment opportunities and challenges.

### **Membership & Officers**

There were 20 voting members of the University of Maine Board of Visitors for the 2021-2022 cycle. The board chairs for the University of Maine Foundation and the University of Maine Alumni Association, as well as a representative for the University of Maine at Machias Board of Visitors served in an ex-officio status. Of the 23 total members, 17 have homes in Maine; the other members reside in California, Massachusetts, New Hampshire, New Jersey, and Washington, D.C., but retain close ties to the state of Maine and the University of Maine. Nine of the voting members are women, as well as one of the three ex-officio members. The members of the University of Maine BOV represent diverse professional backgrounds including but not limited to: architecture, education, engineering, law, finance, healthcare, banking, market development, public service, and nonprofit management. The BOV membership comprises both active career and retired individuals.

For the current year, there are no vacancies on the University of Maine Board of Visitors. New members for 2022-2023: Ms, Karen Clements, Ms, Candi Ewer, Ms. Kristen Gurall, Ms. Hannah Hudson, Mr. Christopher Rector, and Mr. Amir Reza.

### **Schedule**

The University of Maine Board of Visitors met three times. The UMaine BOV met on October 14-15, 2021 in a hybrid format; on February 10-11, 2022 in a hybrid format; and on May 31 – June 1, 2022 in a hybrid format.

BOV members participated in monthly meetings by telephone and Zoom with

President Ferrini-Mundy and members of her Cabinet. These update meetings provided an opportunity for sharing information and updates related to UMaine as well as the collection of meaningful input and feedback on important topics and initiatives.

### **Meetings and Agenda Items**

#### **October 14-15, 2021: 19 BOV members present**

- Welcome, Introductions, Lunch, President's update
  - Philip Hamilton, BOV Chair
  - Joan Ferrini-Mundy, President
  - Joanne Yestramski, Vice President for Finance & Administration and Interim Chief of Staff
- Working Session on Research 1 (R1) Strategy
  - Kody Varahramyan, Vice President for Research and Dean of the Graduate School
- Working Session on Corporate Partnerships and Engagement
  - Jake Ward, Vice President for Innovation and Economic Development
  - Renee Kelly, Associate Vice President for Innovation and Economic Development
- Update on Coburn and Holmes Halls Public Private Partnership - Boutique Hotel Update - Walking Tour
  - President Ferrini-Mundy provided overview of the UMaine 2025 concept
  - BOV provided reaction to UMaine 2025
- UMaine Foundation Annual Meeting, Wells Conference Center
- Executive Session for BOV members and President only

#### **February 10-11, 2022: 14 members present**

- Welcome, Introductions, President's update
  - Philip Hamilton, BOV Chair
  - Joan Ferrini-Mundy, President
- Panel Discussion on Funding Strategies for the Future
  - Moderator: Michael Bourque
  - Dannel Malloy, Chancellor, UMS
  - Emily Cain, Board of Trustees, UMS
  - Ryan Low, Vice Chancellor for Finance and Administration, UMS
  - Renee Kelly, AVP for Innovation and Economic Development, UMaine
  - Jason Charland, Senior Advisor & Director of Research, UMaine
- Facilities and Infrastructure Investment Proposal and Q&A
  - Moderator: Bob Strong
  - Joanne Yestramski, Vice President for Finance & Administration
  - Jake Ward, Vice President of Innovation and Economic Development
- Student Retention and Engagement as Key Drivers to Revenue Success:

Panel and Discussion

- Moderator: Shontay Delaloe
- John Volin, Executive Vice President for Academic Affairs and Provost
- Robert Dana, Vice President for Student Life and Dean of Students
- Ken Ralph, Director of Athletics
- Debra Allen, Asst. Provost for Institutional Research and Assessment
- University of Maine Foundation Fundraising Strategy and Discussion
  - Moderator: Karen Boucias
  - Jeff Mills, President, University of Maine Foundation
- Executive Session for BOV members and President only

**May 31 – June 1, 2022; 16 members present**

- Welcome, Introductions, President's update
  - Philip Hamilton, BOV Chair
  - Joan Ferrini-Mundy, President
- Roundtable discussion and feedback on current issues
- UMaine 2025 Commission Deliverable and Next Steps
  - Presenter: Grace Garland, Project Director for UMS TRANSFORMS
- Update on the UMS TRANSFORMS: Student Success & Retention initiative
  - **Presenter:** John Volin, Provost
- Tour of the UMaine Extension Diagnostic and Research Laboratory
- R1: Now what? Presentation and Discussion
  - Presenters: Joan Ferrini-Mundy, President
  - Kody Varahramyan, VP for Research
  - John Volin, Provost
- Executive Session for BOV members and President only

Submitted by: Meredith Whitfield, Chief of Staff to the President,  
October 21, 2022

Board of Visitors  
University of Maine at Augusta  
Annual Report  
Academic Year – September 2021 to August 2022

### **Overview**

UMA's Board of Visitors is comprised of a group of highly professional, engaged regional representatives that provide guidance and feedback on UMA's mission and its goals. Our BOV met quarterly during the last academic year. They provided strong leadership and valuable insights during the UMA Presidential search process. No significant concerns and/or issues were raised, with the exception of hoping for deeper, more meaningful engagement with the UMS BOT and the overall goals and plans for the Unified Accreditation work.

### **Membership**

See below for a summary of current members and their professional affiliations. We do have open slots for new members.

Mr. Richard (Dick)	Thompson	2017-2020 Vice	2020-2023 Chair	Deputy Commissioner - State Dep't of Admin. & Financial Svcs.
Dr. David	Cloutier	2018-2021	2021-2024	Veterinarian at Veazie Veterinary Clinic
Dr. Tom	Keller	2018-2021	2021-2024	Founder and Director of STEM Education Strategies LLC
Ms. Jennifer	Riggs	2018-2021	2021-2024 Vice Chair	CNO MGMC/CEO MGCC-MaineGeneral Health
Ms. Shenna	Bellows	2021-2024		Secretary of State - Maine
Mr. Randall	Liberty	2021-2024		Commissioner - Department of Corrections - State of Maine
Ms. Laura	Fortman	2021-2024		Commissioner - Department of Labor - State of Maine

### **Officers**

Dick Thompson serves as Chair. Jennifer Riggs serves as Vice Chair.



## **Schedule**

The University of Maine at Augusta schedules quarterly meetings for our Board of Visitors. Our annual meeting was scheduled for July 26, 2022. Although all members are encouraged to attend in person, we always create and distribute a Zoom meeting link in order to encourage increased attendance.

## **Meetings and Agenda Items**

The meetings scheduled for the AY 21-22 are as follows:

October 26, 2021 (14 attendees)

**Agenda Items: Welcome & Opening Remarks**

**Approval of Minutes from the July 27, 2021 BOV Mtg.**

**BOT/BOV Executive Committee Report**

**President's Remarks & Academic Update**

**UMS Strategic Plan**

**Enrollment Update**

**Budget Update**

**Other Business**

**Significant Item(s): Dr. Joseph Szakas will continue to lead UMA for the next year.**

January 25, 2022 (13 attendees)

**Agenda Items: Welcome & Opening Remarks**

**Approval of Minutes from the October 26, 2021 BOV Mtg.**

**BOT/BOV Update**

**President's Remarks & Academic Update**

**BOV Member Transitions**

**Enrollment Update**

**Budget Update**

**Other Business**

April 26, 2022 (12 attendees)

**Agenda Items: Welcome & Opening Remarks**

**Approval of the Minutes from the January 25, 2022 BOV Mtg.**

**BOT/BOV Executive Committee Report**

**President's Remarks & Academic Updates**

**Enrollment Update**

**Budget Update**

**Other Business**

July 26, 2022 It was decided that we forgo the July meeting in order to focus on recruitment progress, further conversations on what the BOV can do to support UMA and how to better meet expectations of the BOV bylaws. The Chair was also undergoing a serious medical procedure that required significant recovery time.

Submitted by: Joyce Blanchard, Exec. Director of Advancement & Strategic Projects  
Date: October 13, 2022



**UMF Board of Visitors  
University of Maine at Farmington  
Annual Report, September 2021 - August 2022**

**Overview**

The 2021-2022 meetings of the UMF Board of Visitors (BOV) focused on Strategic Planning and initiatives, marketing, budgeting, and Advancement.

**Membership**

The Board had 18 voting members, eight men and nine women representing the private, nonprofit, and education/public sectors, as follows:

**Private Sector**

Scott Conners '90, Landmark Partners (retired)  
Chris McKee '92, Geiger  
Todd Chamberlain '03, Pro Search Inc.  
Jennifer Bjorn, Kyes Insurance  
Greg Patterson, Farmington Walmart  
John Moore, Narrow Gauge Cinemas

**Non-Profit Sector**

Eileen Kreutz, Gold LEAF Senior Institute (*ex officio*)  
Barbara Sergio, Franklin Community Health Network  
Mana Abdi '17, Bates College and Disabilities Rights of Maine  
Thomas Dukes '90, Brigadier General

**Education Sector**

Jennifer Dorman '93, Skowhegan Area Middle School  
Jonathan Moody '98, Superintendent MSAD 54  
Cathryn Wimett, UMF professor (retired)  
Marge Medd, Former BOT member  
Mattie Lajoie '19, Educare Central Maine  
Peter Osborne '09, Maine Municipal Association

One *ex-officio* position is always reserved for the President of Gold Leaf Institute. Most members reside in Maine at least part of the year. Jonathan Moody agreed to a second term, while COVID-19 impacted four members' abilities to serve a second term.

**Officers**

Cathy Wimett, retired UMF professor, served as Chair.  
Peter Osborne, served as Vice-Chair

**Schedule**

The Board met three times virtually and one time via hybrid model during the reporting year. Board members were also invited to All-Campus meetings, Strategic Planning interviews, and other events and forums on campus throughout the year.

**Meeting Summaries****September 24, 2021**

*Board Administration. 16 members in attendance.*

Chair Cathy Wimett welcomed the BOV, introduced the new members, and reviewed recent and upcoming encounters. She also encouraged members to engage in the Strategic Planning process significantly, as BOV involvement is critical.

*Updates, Discussions and Activities.*

The Board took a vote and unanimously elected Cathy Wimett as chair of the BOV.

**COVID-19 Update**

Vaccination requirements are complicated. Only people that are on campus are subject to the vaccination requirement. 1700 headcount – 87% in person classes, 88% are fully vaccinated. 3% of our students are partially vaccinated. 3% religious and medical. 6% of students we are tracking down. (87 students). Oct 1 – noncompliant students will be automatically withdrawn. These public safety requirements have enrollment implications. Undergrad headcount is down 4% compared to last year, but Graduate headcount is up 7%. This increase is not a major impact on numbers due to small numbers overall in the Grad programs. UMF received \$3,000,000 in emergency money from the government for relief and it is helping retention. We allocated over \$800,000 for students for the first semester so far. Students are thinking about registration next semester, this could bring relief for them.

**Enrollment Planning**

Christine Wilson, VP for Enrollment and Student Services, asks the BOV to be a part of the enrollment management planning in October. The financial support plan for students (Institutional aid) will be discussed in November. Finally, the Marketing and Communications plan will be tackled in January. Calendar invites will be sent out to interested members.

**Academic Update**

A large portion of courses have been redesigned for a three credit model. The model will be implemented for the Fall 2023 semester. Things have been complicated and contentious, but have been moving forward. More updates to come in December.

Chair Wimett pointed out that regulations for teacher certification have not been finalized. UMS has a lot of different models and options that we can move in, but it can be overwhelming for some.

**Facilities Update**

There have been improvements in paint, ceiling tiles, LED upgrades, fire alarms in Roberts and Dearborn, heating upgrade in Mantor, Preble/Ricker, new ADA lift in Ricker. Dearborn Gym's floor has been sanded and relined. UMF power washed and installed pavers by Alumni Theater. This fall, the town is doing some work on High Street. This two year project includes installing new

street lights and widening the sidewalks. Fitness and Recreation roof replacement will be going before the BOT for approval. Façade bricks are almost complete on the building. Early Childhood Center – 274 Front Street is being used as a testing center. We will be moving forward with pricing and design. There is an earmark out to Senator Collins for about \$1 million. Request into the state for another million earmark, currently waiting for final approval. Need updated costs so we know how much more we need to raise. Reengage architect for cost updates.

UMF is under contract for a campus energy audit, with the goal of reducing energy. A new HVAC design and envelope updates are planned for Merrill, Purington and Stone Halls. Four new key card access points will be added, bringing three more buildings online and secure. Prescott Field is being improved, with a new poured pad for batting cages. Additional work is addressing ADA accessibility, thanks to a grant. By January, UMF will start bidding for summer projects.

Eileen Kreutz asked if UMF is currently buying solar energy. Yes, UMF partners with large companies to purchase as a centralized benefit. BOV suggests looking to add a solar array on Heating plant and other buildings with flat roofs.

#### Advancement Search

The Associate Director of Advancement position is on hold. Covid hit and UMF had to pull back. Need a fundraiser in this role and now is the time to move forward. A BOV member committed to be on the search committee. Timeline – spring 2022 realistically. Job posting will be up for 2-3 weeks before activating the search committee.

Stone Child Tribal College's President and leadership team will be coming out to visit UMF. Looking to feed students into UMF's Masters Programs and possibly send students to their college. We need to listen to them, they could be a good match. There will be a BOV opportunity to connect with them. Hope to have a place for fall of next year. They are located in Box Elder, Montana on public tribal land. Chippewa Tribe. They are one of seven tribal colleges and they are branching into Bachelor degrees. Out of state exposure will be beneficial for Maine and Montana students. President Serna will send out the Fall Fest Schedule and link to Ghosts of Paul Revere, and Enrollment Committee Zoom meetings.

Meeting adjourned

#### **December 10, 2021**

*Board Administration. 10 members in attendance.*

Chair Wimett welcomed the BOV, reviewed the agenda, and made introductions.

*Updates, Discussions and Activities.*

Assistant Vice President of Advancement position

UMF met with four finalists last week via zoom with semifinalists. Two people have been invited to campus. BOV members will be invited to join a 3:00-3:30 pm via Zoom on December 20 and 21<sup>st</sup>. Candidates will give a presentation to the search committee. President Serna is excited about the two candidates so that is encouraging.

#### Tribal college in Montana

During the last week of October, UMF hosted the President and Senior Team for Stone Child College. They left feeling confident and comfortable in sending their students to UMF. Greenlight to establish MOU with their institution. They hope to send five students to UMF by next fall in the Education program.

#### Advancement

Lauren Serna and Katie O'Donnell gave an update regarding the fall fundraising campaign – “Giving Tuesday” to the end of the year. The “Books for Beavers” fund this year went very well. It’s an area of great need, still. Christine Wilson communicates with the faculty when a struggling student is identified.

#### Enrollment/Marketing

Lisa Ellrich from Admissions has been promoted to Assistant VP For Enrollment Management and Director of Admissions. She will oversee the Marketing department and is working on recruitment initiatives. Fall 2021 was an interesting time. Fall 2020 was easier to recruit than Fall 2021. It’s been trying across the board at every school. Instead of the typical 800 in-person visits, we managed 503 visits, combo in-person and virtual. UMF is taking things one visitor, one student, one family at a time. We’ve seen great success with an in-person visit with individualized service. The team has met at schools, classes, and guidance counselors.

Early action deadline was November 15 and was wrapped up at the beginning of December. There is a slower input of applications, but the number of applications is up slightly than last year. Numbers are down for in-state students. Out of state and NE Regional is on par with previous years.

New and ongoing initiatives: Implementation of a new Client Relationship Management System replacing the current Target X software, working with a marketing cloud and Salesforce implementations. There was an RFP for Advancement, and SALESFORCE will save money in license costs and fees. We will be able to customize and personalize in better ways than Target X. This will be implemented in January.

Last year 30% of our incoming class were athletes. Athletics/Marketing completed a “Seal the Deal” training before COVID. That training paid off last year, and we hope to continue that energy: higher GPA, higher retainment. Search for Director of Marketing and Communications has begun.

Christine Wilson thanked the BOV members that participated in the RFP marketing system listening tour. Vision Point is the firm that was selected. The company will be back on campus for brand awareness workshops in the future. BOV can help look for organizations for experiential learning. We are looking to grow internships and learning opportunities. Everyone has a role in recruitment. Students want to meet with alumni and faculty. ALUMNI Recruitment Program is lifting off the ground.

#### Athletics

Jamie Beaudoin presented an update from Athletics. He was promoted to Interim Athletics Director after Julie Davis retired. He is a graduate of UMF from 1987 and played soccer and basketball. NCAA Division III has no athletic scholarship required and is centered as part of their

academic experience. UMF has 21 varsity sports, including Alpine Ski, Baseball, BB, Cross Country, Golf, Nordic Ski, soccer, Women's lacrosse, SB Freeride, Indoor/Outdoor Track and Field. 16 of 31 staff members are alumni in UMF Athletics. The average GPA of a student-athlete is 3.25. 2021-2022 has 137 males and 147 females participants. 30% are new students. Virtual collaboration increased with Admissions. The coach can see an athlete play and start the recruiting process, because of contact tracing, they are in constant communication with Admissions. Build on the relationship we already have.

#### Graduate programs – Certification

Erin Connor, Associate Dean for Graduate Education, is in her third year at UMF. Farmington has had Graduate degrees since 2011/2012. Educational Leadership continues to change as needs change. January of 2020 – initiated Special Education, and it is our fastest growing Master's degree. Students have a lot of energy regarding the SPARK program and academic faculty. Pathway 4+1 is available.

Fall 2020 – Master of Arts in Counseling Psychology was rolled out to license counselors using Arts. It is a full-time program with one start per year. The cohort in the fall with FT students lasts two years. Start the second cohort the following fall. It is an intense program, with lots of work from faculty. So far, it has been successful, and retention is strong. Finally, a master's in mathematics education came from a push from certificate students.

#### Graduate Credit hours:

2019 – 909

2020 – 1086

2021 – 1295

Looking into new programs, stackable certificates, and using Salesforce to help increase alumni apps. We are also looking to branch out beyond Education to provide full-time programs. Jennifer Dorman is thankful for the Special Ed Masters. UMF's Ken Lewis visited Jennifer's school. For those that are connected to school districts, Ken is very willing to join school events or classes. A program with RSU 16 is underway – got to do more work in that area. Districts are facing teacher shortages. And Jennifer's school requires master's degrees, so there will be interest to fill this role.

#### Early College

Kirsten Petroska, Director of Early College, has been an Alum from 2011 – Glad to be back at UMF, for seven months now. In our Early College program, HS teachers teach the classes but are sponsored by UMF faculty. Students receive college credit once success 225 Students by the end of the school year 2021-2022. If the students take a course with UMS, it's likely 50% of them will join a UMS Campus after graduation. Kirsten reviewed current partners and most popular courses. Spring that will be taking classes online or on-campus with UMF. This fall, the Early College program is launching career and major pathways. Three-four courses for a major and the student will receive a certificate for it. There are new partnerships in Skowhegan, possibly in Lewiston, Casco Bay, Camden Hills. The BOV can help support Early College by spreading the word! Make suggestions and share connections. Please continue to encourage UMF to provide more clarity in various modalities, like online. Ask questions!

Chair Wimett reviewed dates for upcoming opportunities on campus.

Meeting adjourned.

### **March 4, 2022**

*Board Administration. 9 members in attendance.*

Chair Wimett welcomed the BOV, reviewed the agenda.

#### *Updates, Discussions and Activities.*

Chair Wimett introduced the temporary changes in how the system/Chancellor communicates with individual BOVs. The UMF BOV can have up to three people at these meetings, and every campus is represented. It's essential that the UMF BOV is a part of it and is active.

#### BOV terms and June Chair & Vice-Chair Elections

Chris McKee, Scott Connors, and Cathy Wimett's terms are expiring. The BOV will need to elect a new chair and a vice-chair. At the upcoming June 3<sup>rd</sup> meeting, there will be a vote. Someone can stay on beyond their term for one year if they remain chair. Chair Wimett is willing to do that. Since President Serna is transitioning out of UMF, the BOV needs to be more active to support the senior leadership at UMF.

The Chancellor and two members of his leadership team visited UMF last week and met with various groups. Chair Wimett chose to meet with the Chancellor alone due to the short notice. He's coming back on the 6<sup>th</sup> of April. Amy Perreault plans on sending the schedule of that day out to the BoV when it's ready. The Chancellor's focus seems to be on whether it will be a one or 2-year interim president appointment. That's more reason the BOV should seriously consider helping with capital campaigns and getting more involved.

The 2022 Commencement will be back in person in an outdoor setting. The committee is working with Jon Moore to have this event at Narrow Gauge Cinema in the Drive-In. This plan will be a fantastic way to graduate students on a stage in front of the Western Maine mountains. We're looking forward to students having a return to a traditional commencement. Please mark May 7<sup>th</sup> at 10:30 am on your calendars. President Serna will be announcing this to campus and to the public soon.

Good work is happening regarding the strategic plan and conversion, enrollment management plan, Sweatt-Winter project on Front St., and we hear more and more interest and excitement about investment into athletics. High school facilities are outpacing us. We need to invest in that area with the large percentage of students in athletics programs.

#### AVP of Advancement Update

President Serna reports that we had two viable candidates for the positions but could not close either of those deals. We need to be more creative now. We could explore the idea of a consultant for a capital campaign for the turf field. Scott Connor asked why it has been challenging to fill this position. President Serna explains it is a matter of supply and demand – many universities are buffing up their campaigns and throwing a lot of money at them. The UMS pay scale is not competitive to attract that sort of talent to the state of Maine. We're paying 30-40% below other universities. The housing situation is not helpful, and a cocktail of issues makes this problematic. We may need to go with a hired gun to help us move on a specific project and work to our goal. We might be receptive to remote options for the right candidate.



#### Athletics/Fitness and Rec Center

Laurie Gardener reports that UMF has a contract to replace the roof, giving UMF 25-30 years of security. Facilities Management is preparing an estimate now for the siding because the brick is crumbling. It will be expensive to repair and requires BOT approval at the May FFT meeting.

UMF continues to spend allocated bond money on the new Sweatt Winter building, ADA ramps on campus, and Merrill Hall exterior improvements. There is a plan to turn Stone Hall into suites to be more attractive to students, and Dakin Hall will be brought back online for the Fall. Lockwood will be closed for upgrades. Late Jan, we received BOT approval to proceed with 274 Front Street. By the end of the month, we will go to bid for a builder. We predict that before the end of the fiscal year, we will have someone on board to start building with a goal to be open Jan 2023.

UMF is the only campus doing a 100% review of campus for energy savings. We're going to get some good publicity from the System for doing this campus-wide. Projects are being considered, such as adding solar panels to several roofs on campus for energy backup services. The campus's net asset value will increase. There is an additional investment for upgrades in HVAC equipment and a small backup boiler will be added to the bio-mass heat plant.

#### Strategic Plan Progress Update

UMF is committed to not being just another university with a plan; they need to be a strategic university. The campus needs to be solution-oriented, handle ambiguity and handle change. Organizations with these principles are successful, but it's a difficult learning curve for this campus. The work continues, it's complex and messy, but we are making progress. President Serna reviewed a chart with the progress of the strategic plan.

#### Enrollment management

Christine Wilson, VP for Enrollment and Student Services, reports that the enrollment management plan is being led by four pillars toward student success: Advising and purpose (helping students see through their goals), financial literacy (student and family), engagement and belonging, and wellbeing and safety (support mental health needs and engagement). UMF is very explicit about the campus experience and how enrollment management will center their success. Teams are focusing on student needs and focusing on digital collaboration, and telling stories. The student financial support model is the hardest to change. Financial aid needs to focus more on the need-based side than the non-need-based side. Overall, the future we see is exciting, and good ideas are coming to fruition from this process. We are hopeful because enrollment is projected to be up. Student-athletes have a big place in our enrollment plan. The turf field would be helpful for this.

#### 4:3 credit transition

Eric Brown reported that the Academic Affairs had reached the point where most of the current course revisions are in final draft form. They have moved from concept to a process, which is rooted in the Curriculum Committee. Once this flow is moving, people will be able to turn to work on a new scheduling grid. There is a request to the System for additional resources to support the registrar's office to build up the staff there to help with the individual graduation plans.

What's next with the strategic plan?

Organizational Structure – UMF uses an antiquated model. The UMaine System moved to shared services on top of the antiquated model, which created a lot of gaps and holes across the campus. The Academic side is looking at a flatter organizational structure because if we try to do all the changes we need to with the current structure, it will fail. UMF needs to keep momentum, President Serna is here until June 30<sup>th</sup>, and the team will not let this be derailed.

Chair Cathy Wimett highlights the importance of maintaining momentum. What else does UMF need from the BoV? President Serna requests members stand in solidarity with the leadership team and express that we're doing what's best for Farmington. Continuous support and advocacy are needed. UMF is searching for a new athletic director and would love to have the BOV be available to meet with top candidates. We are moving forward with the beginning stages of this search.

Meeting Adjourned.

### **June 3, 2022**

*Board Administration. 11 members in attendance.*

Chair Wimett welcomed the BOV and reviewed the agenda, recent engagement reports, as well as recent and upcoming encounters.

*Updates, Discussions and Activities.*

The BoV used to meet twice a year with the Board of Trustees and Chancellors. Cathy would like more participation from members (1-2 at each meeting) at upcoming Trustee meetings. The Chancellor meets with the BoV for 1 hour every other month during the President's Council meeting. There is a lot of focus in this meeting on the goings-on at the System level and at Orono, much less about the individual universities. Chair Wimett watched part of the System Trustees meeting in May. Amy sent the link to that recording to everyone as part of the notes. There were several faculty from a variety of campuses that spoke. Almost everyone mentioned Farmington although there wasn't Farmington participation. Chair Wimett would like to organize an informal meeting of BoV from across the System. John Moore suggested that UMF BoV would like to meet with Trustees members as well if that is possible. Possibly invite them to the informal meeting. A conversation about asking Janet Mills to speak with the BoV.

The BoV would like to host a gathering with the new Interim President and his wife when he takes office at John Moore's camp.

### **Chair Election(s)**

Peter Osborne nominated Cathy Wimett to continue as Chair for 1 more year. This was seconded by Chris McKee. A vote was conducted and unanimously passed. Peter Osborne nominated himself for vice-chair, seconded by Chris McKee. A vote was conducted and unanimously passed.

Chair-Elect (extend for 1 year) – Cathy Wimett

Vice-Chair – Peter Osborne

#### Campus Update and Discussion

The new Sweatt Winter building on Front St. is on schedule, opening in Jan. A Turf field getting funded by then as well would be ideal. The Fitness Center roof is half finished and the siding contract will be going through. Merrill is getting the external updates it needs this summer.

Enrollment needs a new manager to fill Lauren Serna's role. We serve two populations, athletes and 1<sup>st</sup> gen low income, and need the financial assistance that UMF assists. These students need to continue to be our focus. Enrollment is consistent with national data. We're seeing growth in graduate and first-year enrollment. FY 23 is balanced.

The turf field capital campaign needs to be brought before the capital campaign BoT committee before it can receive approval. John Moore believes there is interest in the community to help move this forward with this improvement. Thank you to outgoing members (Chris McKee, Scott Connors, Marge Medd) and President Serna.

Meeting adjourned

*Submitted by President Joseph W. McDonnell  
October 2022*



**Board of Visitors  
University of Maine at Fort Kent  
Annual Report**

**Academic Year- September 2021 to August 2022**

**Overview**

The Board of Visitors (BOV) met quarterly during the academic year mostly via Zoom due to COVID and campus safety protocols. The Executive Committee met prior to each meeting at the request of President Hedeon to set the agenda. At each regular meeting, University Administrators, Cabinet Members and other University staff, faculty and students provided the Board with information and updates on the System and Campus, Finance and Facilities, Development and Foundation, Enrollment, Early College, Alumni and Academics.

In addition to regular updates, the Board was provided a presentation on a program project or requested topic/area of interest. The following were also reported on and/or discussed throughout the year:

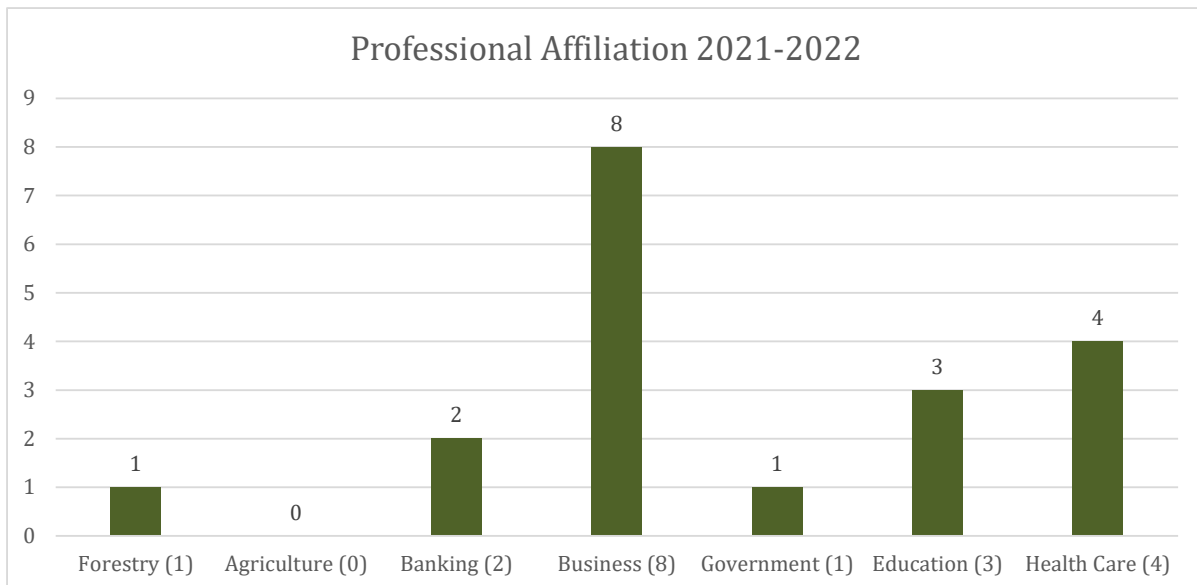
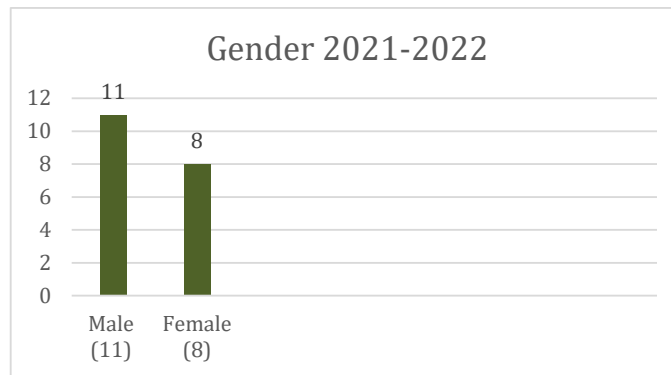
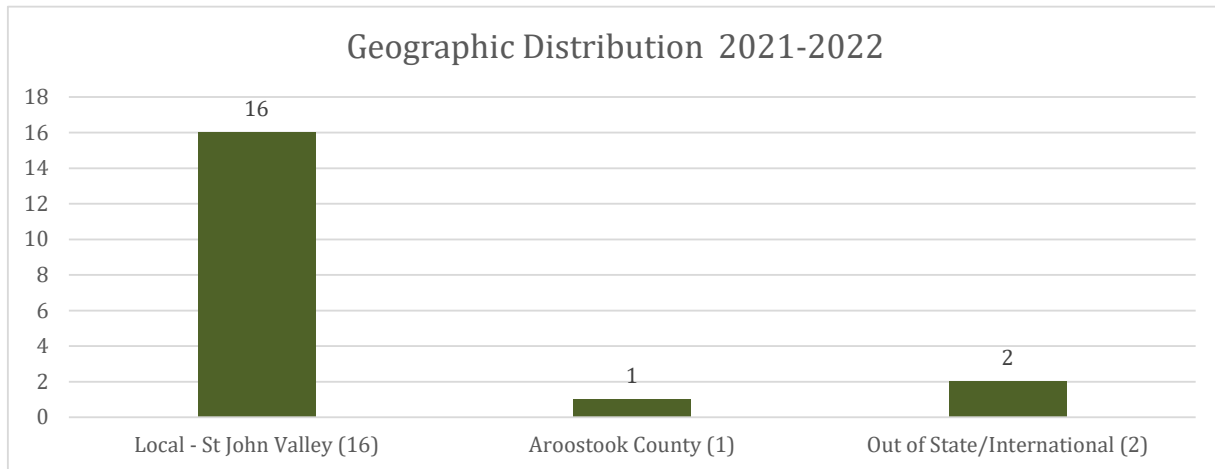
- Recruitment and Retention
- System, Campus & Budget Updates
- UMFK Foundation and Alumni accomplishments, special events, and other fund-raising/outreach activities.
- New faculty and staff throughout the year.

**Membership**

The membership of the Board runs from July 2021 to June 2022.

Alain Ouellette	Summit Project Management Company - Independent Contractor
André Léger	Les Brasseurs du Petit-Sault Inc. - Co-founder
Benjamin Sirois	SAD#27 - Superintendent
Doug Taggett	Daigle Oil Company - Information Technology Manager, BOV Vice President
Gary Stevens	Retired MSAD #27 Administrator
Gisele Dionne	Madawaska School Department - Superintendent
Jennifer Derosier Daigle	Lakeview Restaurant - Business Owner
Jennifer Malmborg	Fish River Rural Health - Director of Behavioral Health Program,
Joe Becker	Faculty Representative (non-voting)
Josh Philbrook	Irving Forest Products - Ashland Sawmill Manager
Judy Dionne	Twin Rivers Paper Company - Human Resources Manager (Resigned 03/03/2022)
Justin Dubois	Acadia Federal Credit Union - Commercial Loan Officer, BOV President
Kris Malmborg	United Insurance in Fort Kent - Account Executive, BOV Secretary
Lori-Ann Cyr	Diversis Inc - CEO
Louis Dugal	Country Village Estates, LLC - Administrator
Nicole Marquis	Northern Maine Medical Center - Chief Nursing Officer
Norman Fournier	County Commissioner - Retired FRRH CEO / Trustee
Peter Clavette	United Insurance in Madawaska - Senior VP/Managing Partner
Rachel Johnson	Student Representative (non-voting)
Susan Whitehead	Norstate Federal Credit Union - Chief Executive Officer
Suzie Paradis	Town of Fort Kent - Economic & Community Development Director

**Demographics (data does not include student and faculty representatives):**



**Officers**

Justin Dubois	BOV President
Doug Taggett	BOV Vice President
Kris Malmberg	BOV Secretary

**Schedule**

The Board of Visitors held four regular meetings within this reporting year on September 10, 2021; January 21, 2022; March 11, 2022 and June 10, 2022. Most of the meetings were held via Zoom due to COVID and campus safety protocols.

The Board of Visitors and other representatives were also invited to participate in Town Hall Sessions with Chancellor Malloy and System Staff during their fall and spring campus visits on October 18, 2021 and April 26, 2022.

**Meeting and Agenda Items****September 10, 2021****UMFK BOV and Foundation Joint Meeting**

Attendance: 10 Present, 9 Absent, 5 UMFK Faculty/Staff and Other Guests Present

**Agenda:**

- Welcome
- Board Missions (BOV and Foundation)
- 2020 Highlights and 2021 Look Ahead
- Strategic Plan Presentation
- “What Can You Do” Discussion
- Share Goals
- Adjournment

**Meeting Summary:**

The vibe on campus is different this semester; less limitations due to Covid. More opportunities available for interactions and engagement in the classrooms and around campus with activities. Review of the missions of both Boards. Discussion of different areas of growth; communication and procedures; initiatives and innovative projects and programs. Review of our strategic plan and how it can help us improve our enrollment. Breakouts facilitated by Board Chairs where they discussed ideas not only on what they can do, but how we can do it.

**January 21, 2022**

Attendance: 13 Present, 6 Absent, 19 UMFK Faculty/Staff and Other Guests Present

**Agenda:**

- Welcome & Approval of September Minutes
- Focus Area: Bengal Buddies
- UMFK Updates and Reports: System, Athletics, Enrollment, Retention and Budget, Arctic Studies, Student, Faculty, Foundation and Alumni
- Committee Reports: Advocacy, Education and Development, Special Projects and Nominating
- BOV Discussion
- Adjournment

**Meeting Summary:**

Members from the student success team offered a presentation on “Bengal Buddies”, a new program which offers peer support (student to student) to new or challenged students. The mentoring students focus primarily on referring students in need to various resources already available (tutoring, Writing Center, academic workshops, etc) and providing emotional and social support. President Hedeem welcomed our Interim Deans of Enrollment and Arts, Science and Professional Studies. Commencement will be held in person on May 7, 2022. Spark 451 is assisting with website redesign. Continued focus is on recruitment and retention across campus. Campus Development Day was on January 10 with a focus on Diversity, Equity and Inclusion. Our athletic teams are now having more games locally due to lessened COVID traveling restrictions. We are piloting a new program entitled “Arctic Studies” in hopes that it will attract more students who enjoy cold weather and are looking for research expedition training. This was our student representative’s final meeting. He reported on events that were held last fall. Nominations are underway to fill this position. A total of \$70,500 in scholarships have been awarded. Several fundraisers are planned for the spring semester.

**March 11, 2022**

Attendance: 12 Present, 6 Absent, 8 UMFK Faculty/Staff and Other Guests Present

Agenda:

- Welcome & Approval of January Minutes
- Focus Area: Enrollment Data
- UMFK Updates and Reports: System, Budget, Student, Faculty, Foundation and Alumni
- Committee Reports: Advocacy, Education and Development, Planning, Special Projects and Nominating
- BOV Discussion
- Adjournment

Meeting Summary:

A UMFK Quick App has been created and has shown an increase in the number of applications. Bengal Bound Days will be held in March and April to boost matriculation of students. Fall to Spring retention rates have increased 10% for new students. Our budget will be presented to BOT on March 23<sup>rd</sup>. We must increase our credit hour production in order to remain viable. The Nominating Committee reported that six members are terming out and three of those terming have agreed to extend their terms by one year to lessen the impact of new members.

**June 10, 2022**

Attendance: 10 Present, 8 Absent, 26 UMFK Faculty/Staff and Other Guests Present

Agenda:

- Welcome & Approval of March Minutes
- Focus Area: Admissions / Retention
- UMFK Updates and Reports: System, Budget, Collaboration with UMPI, Acadian Archives, Student, Faculty, Foundation and Alumni
- Committee Reports: Advocacy, Education and Development, Planning, Nominating, Acknowledgement of outgoing, extended term and new incoming board members
- BOV Discussion
- Adjournment

Meeting Summary:

Discussion of different strategies to implement to increase our enrollment. We had a successful in person commencement. Conversation about repurposing/ transforming spaces on campus for improved student use. Transformative Programs of Distinction meetings will begin to address low enrollment. Analysis of budget and determination that increased enrollment is critical to maintain services. Review of nursing collaboration with UMPI and award of grant for OB mobile simulation van to serve all UMS schools of nursing. Adult Gerontology Nurse Practitioner Program to begin in July 2022. NECHE Accreditation Team to visit in October. CCNE Accreditation Team to visit in the fall. Hurdles, promotion, engagement upcoming events, outreach and future opportunities were topics of discussion from Acadian Archives. Presentation from nine faculty members were shared via submitted report. Information delivered regarding overall gifts and scholarships awarded to date and recap of the Foundation Gala and Ski Shoe Ski fundraisers. The Advocacy Committee will start looking at sponsoring Business Breakfasts again. The Nominating Committee acknowledged outgoing members and made recommendations for new officers and members for FY23.

Submitted by: Lisa Roy on behalf of President Deborah Hedeon and BOV President Justin Dubois  
October 6, 2022



**BOARD OF VISITORS**  
**University of Maine at Machias**  
Annual Report  
Academic Year — September 2021 to August 2022

## OVERVIEW

Over the past year, the UMM Board of Visitors once again provided valuable support and advice to President, Joan Ferrini-Mundy, Head of Campus, Daniel Qualls and the campus administration. The BOV members' breadth of professional experience, combined with their depth of knowledge about the Washington County culture and economy and their commitment to UMM and its critical role in the region, proved extremely helpful as the University continued to struggle with COVID, enrollment and finances, and addressing the challenges and promises inherent in UMM's partnership with the University of Maine, as well as the work of Unified Accreditation.

BOV members served on various campus committees, such as *ad hoc* work groups addressing Marketing, Student Retention and Success, and Facilities Use. The BOV accomplished several goals that were set forth by Head of Campus Daniel Qualls: Supporting the Primary Partnership; Integration with the UMaine Board of Visitors; Including faculty and student presentations to the BOV; Alumni Collaboration with UMaine; and Strategic Plan assessment and recommendations. Members routinely attended campus events and meetings, and they took advantage of the Murdock Fitness and Aquatics Center and Merrill Library.

The Board of Visitors has been transitioning to its more significant role in influencing the direction of UMS, along with other boards of visitors in the system. Members continue to be optimistic about UMM's primary partnership with UMaine, and they continue to monitor its progress.

## MEMBERSHIP

Arnold Clark, Ronald Ramsay, Dianne Tilton, and Jacob van de Sande completed 2 terms of membership each and termed off the BOV. Six new members were added to the BOV: Nicole Case, Beth Clifford, Rhiannon Hampson, Bill Kitchen, Jordan Porter, and Rick Scribner. The Board of Visitors is now comprised of 17 members, including 6 men and 11 women. Members come from throughout Washington County for a wide geographic spread, and they represent a good array of Washington County businesses and industries. The Board is committed to maintaining a full contingent of Board members representing the various businesses and organizations in Washington County.



Nicole Case	Machias Memorial High School (Machias)
Beth Clifford	Maine Indian Education (Calais)
Nakia Dana	Education Resource Coordinator (Princeton)
Sarah Craighead Dedmon	Machias Valley News Observer (Machias)
Atrica Emerson	Washington County CareerCenters (Machias)
Chris Gardner	Director, Eastport Port Authority (Eastport)
Rhiannon Hampson	Maine Department of Agriculture (Bangor)
Bill Kitchen	Machias Town Manager (Machias)
Charley Martin-Berry	Community Caring Collaborative (East Machias)
Susan Mingo	Washington County Community College (Calais)
Jennifer Peters	Sunrise County Economic Council (Machias)
Jordan Porter	Nurse Practitioner (Machias)
Juana Rodriguez Vazquez	Mano en Mano (Milbridge)
Rick Scribner	Retired UMM Professor (Machias)
Sam Whitney	Machias Savings Bank (Machias)
Kyle Winslow	Downeast Coastal Conservancy (Machias)
Amy Zipperer	Downeast Community Hospital (Machias)

## OFFICERS

Kyle Winslow is the Chair of the BoV with Charley Martin-Berry as the Vice-Chair. Kyle and Charley are among UMM's strongest supporters, and both are heavily involved in campus activities and initiatives.

## SCHEDULE

UMM's Board of Visitors typically meets as a full board six times during the academic year, including an annual meeting in July. BOV members met via zoom during the COVID pandemic but have begun in-person meetings recently.

09-14-2021	Fall meeting via Zoom
11-09-2021	Fall meeting via Zoom
01-11-2022	Winter meeting via Zoom
03-08-2022	Spring meeting in-person meeting with zoom access
05-10-2022	Spring meeting via Zoom
07-12-2022	Annual meeting in-person

## MEETINGS AND AGENDA ITEMS

September 14, 2021

### **President's Report – Joan Ferrini-Mundy:**

President Ferrini-Mundy talked about the enrollment, faculty and staff from 2011-2021. 37% drop in degree-seeking students and 47% drop in credit hours. 34% drop in faculty and 45% drop in staff/administrators. Enrollment looks like it is turning up in 2021 with an increase in non-degree students.

112 students in the residence halls fall 2021; 50 rooms are reserved for quarantine and isolation; Total enrollment is 747 students which is up 1%.

Big piece of news is the Regional Task Force chaired by Emily Haddad. They have concentrated on seven topics (1 group per topic) and there has been participation from UMM and the BOV on these groups. The new UMM logo is the work of this Task Force and is supported by them and we are launching that into place with full completion of the big

elements of this group by next summer. An integrated org chart has been proposed and is still under discussion.

Once the report is in from the Task Force, Joan would like to have a meeting with local business leaders to reassure them that UMM is not going away.

**Head of Campus Report - Daniel Qualls:**

Dan reported there are several positions on campus that need to be filled. Jennifer Isherwood – Asst Coordinator of Native American Student Outreach and Development (shared with UMaine); Robert Tropea – Asst Prof of Business and Entrepreneurship (Fixed length); Kristel Mead – Asst Director of Marketing and Communications; David Invergo – Interim Director of Student Life; Lucky Correia – Administrative Specialist part-time at the Reynolds Center; we have a search in process for the Director of Facilities.

We had a COVID vaccination clinic on campus and there were approximately 33 people who came for their immunization shots – mostly community members. Masks are required indoors regardless of vaccination status.

We only have a couple of students who are not in compliance with their Covid immunization and we are reaching out to them.

The President attended Sipayik Elementary Grand Opening. Dan Q, Heather Ball and the Dean of Education at UMaine are all working with the Superintendent of the Maine Indian Schools, Dr. Reza Namin. Washington County Superintendents Association have pulled together their resources to provide professional development for all the local schools, they meet on the UMM campus in October. They would like to see special education services like speech pathology and organized cohorts of masters and certificate programs at UMM. Dr. Reza Namin would also like to see a Native American high school at UMM for 11<sup>th</sup> and 12<sup>th</sup> grade.

**Working Group 5 Update, Stakeholder relations/re-branding:**

There is a timeline for the branding initiative. Enrollment Management and Financial Aid incorporates rebrand for the 2022 cohorts. Soft launch of rebranding on campus. Spring 2022 install bilingual signage campus-wide.

We will be working with a national vendor called Vision Point to assist us with the branding deployment.

October 6<sup>th</sup> will be a soft launch on the UMM campus.

Rebranding will be finalized in the spring 2022...we will all be Black Bears.

“Great Institutions change with the times.”

November 9, 2021

**President's Report – Joan Ferrini-Mundy:**

President Ferrini-Mundy provided information on enrollment and mentioned that we are up a little bit from last Fall. The census shows us at 514 students for Fall 2021.

There is a 37% drop in degree seeking students and a 47% drop in credit hours.

A drop in faculty of 34% and staff/administration drop of 45% which will bring us to a steady state of the right sizing for UMM. Joan is optimistic about growing UMM.

UMM is up a little bit in the residence halls, still holding space for quarantine and isolation.

17 new first-year associate students; 77 new first-year bachelor students. There are 234 Early College students and total enrollment is 747 including non-degree, certificates and early college. This is a very positive picture for enrollments.

UMM students were totally in compliance with Covid regulations by the end of October.

The organizational chart is central to explaining how the governance of the regional campus works. MaineStreet information flows in some ways from the org chart.

University of Maine at Machias will remain University of Maine at Machias, the State of Maine directs that we have seven separate campuses within the university system.

We would have a Dean at the University of Maine at Machias who is also the campus director so this would be a change to the organizational chart. No Head of Campus at UMM. The Dean of UMM would report to the Provost at UMaine. This will go to the Board of Trustees for their endorsement.

Dan Qualls mentioned that this could cause UMM to be disconnected from the President, not in terms of academics but in terms of all the other stuff that has nothing to do with academics – facilities, on call responsibilities, student life, etc.

Joan mentioned that we have committed to do a review of athletics at UMM by the end of next year. The Director of Athletics should be added to the org chart; what would their role be in planning for the future of athletics? The org chart doesn't really address different situations so we have to think about structurally what would things look like on campus?

Jacob van de Sande mentioned adding a dotted line from the Campus Director to the Marketing Coordinator.

The org chart will be presented to the Board of Trustees for their January meeting.

The Chancellor is visiting campuses and will be at UMM on November 16<sup>th</sup>.

Joan talked about the Task Force and we are waiting for the final report with recommendations and next steps.

**Head of Campus Report - Daniel Qualls:**

Dan reported we have hired a Facilities Director at UMM. His name is Barney Perry and he has hit the ground running.

Our Interim Director of Student Life has resigned with 5 days notice. He was also our Student Activities Coordinator – this left us with one professional student life staff, Dyandrea LaBonte. Robert Dana sent a staff of 5 people to work with Dyandrea and help support her. Barney Perry is focusing on the student life area and is working out things that make Dyandrea's life easier too. We have posted a position for Director of Communications and Marketing as well as Facilities Maintenance Manager. We are excited to hire a business position for faculty, the Business School at UMaine helped us design the position and we hope to have it in place for Fall 2023. A business coach has been put in place also to help our students taking classes online.

We developed some ideas for UMM's Homecoming and gave the students an opportunity to weigh in. They wanted to use the fire pits by the pond and have marshmallows and hot dogs to roast. It was a good event and everyone seemed to have a great time. The students seem so upbeat.

**Working Group 3 Update, Admissions and Enrollment Management:**

How do we make one enrollment management office to share ideas and support each other?

We need to find a way for the UM processing team to manage the UMM application process.

Push forward with new promotional materials.

Expand outreach and awareness campaign for UMM.

Collaborate with departments in launching new pathways and/or programs.

Increase applicant pool and enrollment.

International application process handled entirely by UM staff last year.

Singular FAFSA filing process started last year.

History of collaboration and culture of working together on enrollment strategies for the past five years.

Shared recruitment events such as the Maine School Counselor updates.

Variety of referral programs piloted.

January 11, 2022

**President's Report – Joan Ferrini-Mundy:**

President Ferrini-Mundy announced University System Campuses will be opening on time (January 18<sup>th</sup>). There will be intensified testing and continuing to push vaccinations and boosters. There will be guidance about food and gatherings.

Emily Haddad has submitted the Regional Campus Task Force Report to President Ferrini-Mundy. The first step is to meet with Emily, Provost Volin, Dan Qualls, Heather Ball, etc. to discuss the recommendations.

The State of Maine has received dollars from the Federal Government from the American Rescue Plan Act. The money is being transferred out across the state through the Maine Jobs and Recovery Plan. UMS has requested 35mil to aid in workforce development across the system which will be 10 separate projects that have been proposed to the state. It is taking weeks for the approval process. Dianne Tilton is the lead for us on the Downeast Institute Internships Project which would give students some exposure to aquaculture. This would help alleviate the labor shortage that the aquaculture farms are experiencing. The initial business plan has passed the review process with the UMSystem and is now with the State of Maine for review.

Enrollment is looking very positive at UMM. Our enrollment team is trying some new approaches. We have 21 applications already for the Nursing Pathways program – the expectation is 30.

Retention rates are better than last year. We would like to see them in the mid 70's.

The Business program is doing very well on both campuses. We are still trying to get more students into the Engineering Pathways program.

A recruitment piece for Education will be coming soon, a video is being pulled together.

There are two ad hoc committees for the Regional Campus Task Force 1) Academic Integration Committee 2) Technical Background working with MaineStreet and integrating UMS04 and UMS05.

The Organizational Chart has been revised and is still being reviewed. The Head of Campus will report to the UMaine Provost but does need to have a reporting line to the President as well. The Org Chart will go to the faculty senate at UMaine and to the faculty body at UMM for comment. It will then go the Board of Trustees for approval

**Head of Campus - Heather Ball (in Dan Qualls' absence):**

Heather reported that we have hired a new Director of Student Life, Hope Shore from Wilson, Maine. She starts on the 18<sup>th</sup> of January. There are two more positions that are in the process 1) Communications Director and 2) Assistant Director of Student Life. A Facilities Director, Barney Perry was hired a few weeks ago and is doing well.

UMM's Sennett Hall is being considered for rental space. We have had inquiries from Eastport Health Center and also Child Development Services to lease some office space for a few months. Dorward or Sennett Halls may possibly be considered for conversion to apartments to assist non-traditional students who cannot find housing in the Machias area. CoOperative Extension Offices would like to move to UMM also. Conversation is encouraged with Maine Housing and possibly using housing choice vouchers for low income families. Updates are currently being made to our website with the assistance of Mike Kirby. Faculty Development workshops will begin next week to address retention and what types of supports we can place in courses. There is some discussion going on about embedded tutors for courses and how to be flexible and meet the needs of students in case of disruptions.

**Working Group 1 Update, Tuition and Financial Aid (including fundraising):**

Annual gifts are smaller gifts that come by phone, email and mail – usually \$1,000 or less. Major gifts are larger and may come by personal visits or networking – usually \$10,000 or more.

Planned Gifts may come through wills or annuity income from individuals.

UMM's donor database has to be updated into the central database at the UMaine Foundation.

In order to get ready for the Annual Fund ask, UMM needs to come up with names and addresses for potential donors – 50 to 100 names would be a great start.

**Financial Aid Report:**

Connie Smith reported process for FAFSA Completion – Ensure students at Machias campus understand process of applying for financial aid using UMaine’s school code (002053).

Financial Aid Allocation Practices – Provide effective financial aid packages that support recruiting, retention and success of Machias campus students, while also being cost-effective.

Tuition/Fee Rates – Evaluate options and Pros/Cons of keeping separate rates by campus vs. aligning rates.

NEBHE Rates – Align NEBHE qualification methodologies between the two campuses.

International Rates – To align tuition and fee practices for international students at the two campuses.

International Student Scholarships – Align international merit awarding methodologies between the two campuses.

Availability of philanthropy-funded scholarships – Provide access and opportunities to Machias students for scholarships and streamline the scholarships awarding process.

Access and Diversity – Provide additional support for the financial aid and billing process for identified populations.

UMaine is implementing a scholarship management tool called scholarship universe. It will allow a student to search for outside scholarships as well as university scholarships. You input certain information and it matches you to specific scholarships.

**MaineStreet Integration:**

MaineStreet Integration – Orono and Machias combined to a single MaineStreet institution by Fall 2023.

General Ledger for UMaine and UMM was integrated before Fall 2021.

Student MaineStreet Integration Committee has been formed.

Requires close coordination between Admissions, Student Records, Financial Aid and Student Financials.

Changes to billing, tuition and fees – streamline and simplify the billing process.

March 8, 2022

**Regional Campus Task Force – Diane Dunn:**

Emily Haddad put final report together for RCTF, submitted on December 31, 2021

Workgroup 1 and Workgroup 3 will continue to work in their areas: Academic Integration and MaineStreet Integration, meeting weekly

Development and implementation of rebranding will continue

Funding a budget for the initial expenses that are associated with the integration

Developing timelines and resources needed for integration

Consider Mission and Vision statements for UMaine and UMM to help direct and guide further implementation

We need to continue to focus on Retention and persistence of credential seeking students

Considering suggestions for changes from the multiple workgroups

Working Group 7 Update, Workforce Development:

Concentrate efforts on entrepreneurs and small businesses

Collaborate with entities in Washington County area to identify and plan for programs to support entrepreneurs and small businesses, using UMaine expertise in the Foster Center for innovation and the Career Center to facilitate this effort

Investigate options for closer collaboration between UMM and UMaine Cooperative

Extension, possibly locating Cooperative Extension on the UMM campus

Focus on developing internship opportunities for students in collaboration with Downeast Institute and several Washington County entities

Develop microcredentials that could add value for learners and prompt them to continue their education and professional development; align these with employment opportunities and employers' perceived needs

Connect with Passamaquoddy Tribe and Mano en Mano organization to explore economic development ideas to benefit diverse populations

Contribute to the current effort toward a national heritage area designation for Downeast Maine and other tourism opportunities

Develop collaboration with UMaine's Blueberry Hill Farm for shared use of facilities in both locations

Inventory UMM facilities and develop plans for revenue-generating programs and rentals

3 important recommendations – 1) more small business and non-profit support by UMM 2)

Tourism and national heritage would be awesome for UMM to have a higher profile and engage our students 3) internships and hands-on learning opportunities – how can we develop more internships and involve our students –maybe an internship endowment to pay students if businesses do not have the ability

Maine Jobs Recovery Plan – potentially has 35 mil to award the UMSystem, some proposals have already been submitted to connect students to internships

**Head of Campus Report – Daniel Qualls:**

A couple of new organizations on the UMM campus: Child Development Services and

Eastport Health Center renting space in Sennett Hall

Possibly Student Health Coordinator provided by Eastport Health Center

Family housing has been proposed for Sennett Hall

UMaine's Cooperative Extension is interested in moving to the O'Brien House on the UMM campus; Admissions will be moved to Powers Hall

Jackie Leonard is the new Assistant Director of Communications and Marketing, Hope Shore is our new Director of Student Life, Amanda Strand is our new Assistant Director of Student Life

Space Advisory Committee will be working on a rolling 5 year master plan and assessing the space on campus so it is utilized effectively

**The President's Report – Joan Ferrini-Mundy:**

Reveling in the recognition of the UMaine campus as a National R1 Carnegie Research University; this is a very coveted honor

Alfond Foundation UMS Transforms Grant award of 240 mil for the UMSystem – 90 mil of which is for Division 1 athletics for renovation of sports facilities at UMaine and also for gender equity

One of the big pieces of the project is the Student Success and Retention Component 20 mil grant which is led by UMaine but is expanding to the rest of the system. John Volin and his team put into operation for research learning experiences which served about 250 students, including students from UMM. Three major components include – Pathways to Careers and Gateways to Success.

Organization Chart approved by ASA Committee of the Board of Trustees March 7, 2022

New Head of Campus title will be changed to UMM Dean and Campus Director and position will report to John Volin, Executive Vice President and Provost at the University of Maine December 21, 2021, RCTF Final Report submitted to the President with recommendations from the RCTF Chair

Further develop and implement the rebranding campaign for UMM

Designate and charge an administrator to ensure integration continues

Job description is being developed for new Dean and Campus Director; there will be a national search

Daniel Qualls will step down on August 1, 2022

May 10, 2022

**Working Group 2 Update:**

UM & UMM single catalog was completed Summer 2021; over 400 courses. A draft of an assessment plan and development of a charge to faculty in academic programs with courses or degrees in common for engaging in collaborative planning. Inventory of Academic Minors is not complete yet

Fall 2021 Faculty adopts the assessment plan; UMM faculty reviewed Program Sheets previewing curriculum adjustments

Academic Integration Committee Appointed – Heather Ball, Timothy Cole, Lois-Ann Kuntz, Diane Rowland, Michael Grillo, Dianne Dunn

Tasklist for the Academic Integration Committee included: identifying academic groups and organizations for each course listed in the single catalog; recommend where each UMM plan and subplan will be housed in UMaine

Academic Integration Committee meets frequently with MaineStreet Integration Committee  
Deadline for MaineStreet Integration is December 2022 and will impact Admissions Fall 2024

**The President's Report – Joan Ferrini-Mundy:**

Enrollment a major focus for Chris Richards, outcomes are incredible.

Chris Richards mentioned that UMM is ahead about 15% in confirms, there are upticks for in-state and out-of-state; there is success with new programs, Coastal Year Program which rolled out last year – 15 UMaine students were given this option at UMM and have chosen to begin their work at UMM. Very successful Accepted Student Day on UMM campus this spring. Historically, the practice was to deny at UMaine and refer the student to UMM – we no longer do that. Open Admissions Counselor position at UMM – please feel free to give interested people Chris's contact info

Nursing Pathways Program – 90 students have applied and 3 confirmations for the first year at UMM

Family Futures Downeast students enroll later, the program partnership decided to accept up to 6 students with children over the age of 8 years on each campus

Joan mentioned that academic integration has been the most important piece to start with. Good progress on Alumni Data Cleansing and Conversion Project from UMM – using system called Grad Load; a lot of duplicate records

Dean and Campus Director search – committee has met once and reviewed the job description, description almost final, will be posted next week; Hannah Carter and Heather Ball are Co-Chairs

Chancellor's visit with Huron Consultants regarding the strategic plan, Machias visit was one of the best

UMaine has graduate faculty, UMM faculty can apply to be one and teach graduate courses  
Joanne mentioned budget approval will go before the board on May 23<sup>rd</sup>, flat tuition increase, we hope to have 125 – 150 students for Dorward next year. We will continue to look at Sennett Hall for new ideas

State Capital budget has more funding for UMM – 2.7 mil for improvements at UMM

Dianne Tilton talked about Maine Jobs and Recovery Plan Program for a partnership between DEI and UMM

Karen announced that an HR contract was sent to a prospective Business Faculty member and it has been accepted for Fall 2022

**Board of Visitors Chair – Kyle Winslow:**

Board Recruitment – Jacob van de Sande, Dianne Tilton, Ron Ramsay are terming off the board July 2022

Think broadly about recruiting new members

Planning Group for the July Annual Meeting – Kyle Winslow, Charley Martin-Berry, Sarah Dedmon, Rose Mondville, Jackie Leonard, Bill Kitchen, Dianne Dunn will help coordinate

Theme for planning committee: community outreach/engagement/connections/college community

Public announcement for the Annual meeting to include community

Joan suggested a meeting with local business people and invite the Chancellor also, Dianne Dunn to pull together with help from others on the board

Orientation meeting for the new members should take place before September meeting

Next year will be the review of athletics and will be of interest to the community

Donor list was circulated for BoV members to add to, this will be supplied to the UMaine Foundation

## **July 12, 2022**

### **Passamaquoddy Homeland Recognition Reading – Kyle Winslow**

#### **Welcome and Introductions - Kyle Winslow – Chair**



Introduced the presenters

Bill Kitchen: Machias Town Manager

Joan Ferrini-Mundy: President University of Maine and University of Maine at Machias

Hannah Carter: Associate Provost for Online and Continuing Education and Dean of Co-Operative Extension

Chris Richards: Vice President for Enrollment Management

Daniel Qualls: University of Maine at Machias recent Head of Campus

Thank you to the group that assisted with this meeting

Dianne Dunn

Charley Martin-Berry

Sarah Craighead Dedmon

Jackie Leonard

Chris Skinner

Sodexo Food Service

#### **Bill Kitchen, Machias Town Manager**

Bill talked about a new commitment from the community and UMM to work together and share resources.

This partnership will make us stronger and better together.

#### **Joan Ferrini-Mundy, President**

UMM and the community will continue to grow together.

Thank you to Dan Qualls for his 3 years as Head of Campus.

Recognized and thanked Marianne Moore for supporting UMM.

A meeting with President Ferrini-Mundy and local UMM business leaders will take place in September or October to discuss the partnership with UMM.

#### **Hannah Carter, Associate Provost for Online and Continuing Education and Dean of Co-Operative Extension**

Thank you to Dan Qualls for his leadership.

Heather Ball is the new Interim Dean and Campus Director.

Kyle Winslow is also Chair of the Executive Committee at the extension office. It is exciting that we are moving the extension office to UMM in the O'Brien House.



**Daniel Qualls, Former Head of Campus**

Sennett Hall was offline 3 years ago and used one wing as our quarantine for COVID. Eastport Health and Child Development Services are both renting separate wings in Sennett as office space.

Nicholas MacDonald has been hired as a full-time Business Instructor beginning this fall. A second position will be hired with the search starting this fall.

An Accessibility Coordinator/Intensive Case Manager position will be hired soon to replace Jo Ellen Scribner who retired at the end of June.

Another position that is being advertised is the Director of the Reynolds Center.

**Chris Richards, Vice President for Enrollment Management**

Deposits are 20% ahead of last year, largest in the system.

Lateef O'Connor has returned to oversee Admissions again.

Morgan Rolfe is a new Admissions Counselor at UMM.

UMM has gone from 150 recruitment events to 1500-1600 with UMaine recruiting also.

UMaine handles all the applications for UMM which has helped with the workload at UMM.

UMM's Accepted Student Day was awesome – 98% of the students showed up and were later in the day given a tour at DEI with their families.

The Coastal Year program has 17 students registered.

**Kyle Winslow, Chair of the BoV**

A big thank you to the members who are terming off. They have served 6 years each on the Board of Visitors.

Dianne Tilton, Ronald Ramsay, Jacob van de Sande (past chair).

Thank you to Daniel Qualls for his years as Head of Campus.

Thank you to the former BoV members for attending.

There are six new members beginning in September:

Bill Kitchen, Nicole Case, Beth Clifford, Rhiannon Hampson, Jordan Porter, and Rick Scribner.

Kyle opened the floor for questions from the community.

Submitted by: Dr. Heather Ball, Interim Dean and Campus Director; Associate Dean of Academic Affairs

Date: October 7, 2022



**Board of Visitors**  
***University of Maine at Presque Isle***  
**Annual Report**  
**Academic Year: September 2021 - August 2022**

**Overview**

Our year was again highlighted by support of the university community as we adjusted to the continuation of the coronavirus and its prolonged impacts on our university and greater community. BOV members were able to participate in regular monthly meetings as well as system-level meetings by Zoom. Regular discussions involved pandemic planning and keeping faculty, staff, and students safe; unified accreditation; UMS and UMPI Strategic Plans; university budget; enrollment; new academic programs; grants and gifts; capital projects and physical plant elements such as the solar array, student housing, and Wieden Hall improvements.

From our prior work, we continued our focus on building relationships that would increase the support of educational services across Aroostook County, including expanding diversity of BOV membership by gender, geography and industry, when identifying the nominations for the upcoming fiscal year. Service on a variety of UMPI committees continues to allow the BOV to have an active role in building relationships with UMPI faculty and staff as we work together for transformative change, all with a focus on student success and sustainability. New BOV subcommittees were created, Chairs identified, and charges developed, to include a Board Governance & Nominating Committee, an Academic Planning and Career Readiness Committee, and the Capital Improvements Committee. Board of Visitor members are also represented on the following UMPI committees: Resource Allocation, Strategic Planning, LDLS, and the University Senate.

### **Membership and Officers**

Our board consisted of 6 women and 15 men, all of whom live and work in the Central Aroostook County area. Members are:

Dan Bagley--Secretary	County Federal Credit Union
Ellen Bemis	Aroostook Mental Health Center
AJ Cloukey	MMG Insurance
Bill Flagg	Cary Medical Center
Nancy Fletcher	Retired- University Maine Presque Isle
Ben Greenlaw	SAD1, Presque Isle High School
Darlene Higgins	Retired-Cary Medical Center
Jason House	TD Bank
Chelsie Johnson	Hope & Justice Project
Donna Lisnik	Educator, SAD#1 (retired); Volunteer, NLH AR Gould Hospital
Carl Michaud	Central Aroostook Association
Jason Parent—Vice Chair	Aroostook County Action Program
Tim Poitras	Chester M. Kearney, CPA
Tom Powers	Executive Director, Presque Isle Industrial Council
Steve Richard—Chair	Central Aroostook Association
Tom Richard	Northern Maine Community College
Leigh Smith	ReMax Realty
Dave Spooner	Northern Maine Development Commission
Trey Stewart	Maine State Senator, District 2
Scott Violette	Barresi Financial
Amber Wire	Houlton Band of Maliseet Indians

For the 2021-2022 Academic Year, the officers were:

Steve Richard - Chair  
Jason Parent - Vice Chair

One new member (Tom Powers) was elected to join the BOV in the middle of the past year as no one was terming out or rolling off. Additionally, one member (Dan Bagley) resigned from membership in the middle of the year due to extensive work and family obligations.

### **Meeting Schedule**

The UMPI BOV generally meets 9 times annually, August to May, with the exception of December. During this year, the BOV new member orientation was held in September (not August). Regular monthly meetings are generally scheduled for the last Tuesday of the month from 7:30 a.m. – 9:00 a.m. in the Campus Center; during this period, with the continued pandemic, all meetings were conducted using Zoom videoconferencing technologies.

## **Meetings and Agenda Items**

### **September 21, 2021: BOV New Member Orientation: 5 BOV Members and 10 UMPI Cabinet Members**

Agenda items included:

- Introductions of all new and current BOV members
- Introduction of President's Cabinet
- Overview of BOV Handbook
- BOV Committees
- UMPI Strategic Plan
- Unified Accreditation
- Budget and Enrollment
- Campus Updates: Reopening for Fall, Homecoming week activities, LDLS

This meeting served as an informational meeting for all new BOV members and to get to know the current BOV members as well as the President's Cabinet.

### **September 28, 2021: 6 BOV Members and 3 UMPI Representatives in attendance**

Agenda items included:

- President's Update (Campus Space Reorganization, UMPI Strategic Plan, UMS Strategic Plan, Unified Accreditation)
- BOV Officer Positions
- Review and Approval of the BOV Annual Report
- University Budget, Campus Housing/potential for a Private Public Partnership
- Admission and Enrollment

Numerous updates were provided so the BOV members were better informed as we started our new academic year. Two items required approval by the members, including the prior BOV meeting minutes and the annual report; likewise, a discussion was held related to seeking a member to serve as the Secretary. Otherwise, no motions or major action items were voted on during this meeting.

### **October 26, 2021: 9 BOV Members and 3 UMPI Representatives in attendance**

Agenda items included:

- Approval of Minutes from September's meeting
- BOV Election of Officers: Chair Steve Richard, Vice Chair Jason Parent, and Secretary Dan Bagley
- Nominations of New Members and BOV Resignations
- President's Update (Chancellor's Visit and BOV Interactions going forward, Enrollment, Personnel, Campus Climate)
- University Budget
- Funding Priorities and Master Plan Discussion
- BOV Committees

Updates and discussion occurred on all agenda items as well as next steps in moving forward with these activities and initiatives. Other than voting to approve the minutes from the September 2021 meeting and the election of BOV officers, no other motions were presented, or votes were taken at this meeting.

**November 30, 2021: 10 BOV Members and 3 UMPI Representatives in attendance**

Agenda items included:

- Approval of October Minutes
- Nomination of New BOV Member
- BOV Committee Chairs and Membership
- President's Report (Solar Array, Major Gifts/Grants: Wieden Gym, Gen Ed Revision, NECHE Annual Meeting, Spring Semester Preparation, Higher Ed Presidencies open across Maine)
- University Budget
- Annual Giving Participation

Updates and clarifications were provided on all agenda items to better inform the BOV in their work and as they meet with community members. Votes included approving the minutes from October meeting and the nomination of a prospective BOV member for this year, as well as a charge from the Chair for a 100% participation rate of BOV members in the annual giving campaign.

**January 25, 2022: 10 BOV Members and 7 UMPI administrators were in attendance**

Agenda items included:

- Approval of Minutes from the November 2021 meeting
- President's Updates (Spring Semester start, Enrollments across the UMS and UMPI specifically, YourPace, Position Searches, COVID boosters/vaccinations)
- Budget Presentation and Capital Projects
- Committee Breakout Session

Numerous updates and clarifications were provided on all agenda items to better inform the BOV as they meet with external constituencies. Other than voting to approve the minutes from prior meeting in November 2021, no motions were presented, or votes taken at this meeting.

**February 22, 2022: 9 BOV members and 4 UMPI administrators in attendance**

Agenda items included:

- Approval of January 2022 Minutes
- President's Report (Graduation, COVID Protocols, UMS Strategic Plan, Upcoming Chancellor's Visit, Spring Enrollment)
- University Budget Updates and Plan Forward
- Renaming of the Development Committee to the Board Governance & Nominating Committee—committee updates

- Capital Improvements Committee--updates
- Academic Programming and Career Readiness Committee--updates

Updates and clarifications were provided on all agenda items to better inform the BOV in their work and as they meet with community members. Other than voting to approve the minutes from prior meeting in January and renaming the BOV Development Committee to Board Governance & Nominating Committee, no motions were presented, or votes taken at this meeting.

**March 29, 2021: 11 BOV Members and 4 UMPI representatives were in attendance**

Agenda items included:

- Approval of minutes from the February 2022 Minutes
- President's Report (Updates from BOT meeting, including all campus budgets and new UMA President announcement; COVID signage; and agreements with all bargaining units)
- Campus Budget: presentation to the BOT FFT Committee
- Capital Projects
- Election of Officers for FY23
- BOV Committee Reports: Board Governance, Academic Planning and Career Readiness, and Capital Improvements
- BOV Representation on University Senate

Updates and clarifications were provided on all agenda items to better inform the BOV in their work and as they meet with community members. Other than voting to approve the minutes from prior meeting in February, no motions were presented, or votes taken at this meeting.

**April 26, 2022: 7 BOV Members and 4 UMPI representatives were in attendance**

Agenda items included:

- Approval of Minutes from March 2022 meeting
- President's Report (1<sup>st</sup> Academic Student Awards Ceremony in person in 2 years, Spring Athletic Awards Ceremony, Chancellor visit with Huron Consulting Group on UMS Strategic Planning, Commencement Plans)
- BOV Membership: Departures and New Members
- University Budget Updates
- Capital Projects: Wieden Gym, Master Plan, and Residential Spaces
- Board Governance & Nominating Committee: Nominations of New BOV Members
- BOV Officers for FY23
- Committee Reports: Academic Programming and Career Readiness, Capital Improvements

Updates and clarifications were provided on all agenda items to better inform the BOV in their work and as they meet with community members. Other than voting to approve the minutes from prior meeting in March and the nominations slate to the BOT, no motions were presented, or votes taken at this meeting.

**May 26, 2022: 7 BOV Members and 2 UMPI representatives were in attendance**

Agenda items included:

- Approval of March meeting minutes
- President's Report (BOT and Chancellor Updates, Enrollment and YourPace Cabinet Retreat, UMPI Faculty Retirements, Academic Reorganization)
- Capital Projects Updates: Wieden Hall, Park Hall, and Skyway Apartments
- BOV Member Terms and Nominations for Officers

Updates and clarifications were provided on all agenda items to better inform the BOV in their work and as they meet with community members. Other than voting to approve the minutes from prior meeting in April, no motions were presented, or votes taken at this meeting.

**Approved by Vote of the BOV and Submitted by:**

Donna Lisnik, UMPI BOV Chair

September 28, 2022

**University of Southern Maine  
Board of Visitors  
2021-2022 Annual Report  
10/13/2022**

**Overview:**

In 2021-2022, Luc Nya served as Chair of the University of Southern Maine's Board of Visitors (BOV), with Jane Eberle starting as the Vice-Chair, and Beckie Conrad and Neil Kiely filling the role once Jane stepped down. The BOV focused its attention on the following areas: supporting, collaborating, and helping USM achieve its goals, especially in the areas of enrollment and retention, fundraising, employment and career services, participation in system-wide joint BOT/BOV meetings, diversity, equity, and inclusion, and providing testimonials on the importance of USM and UMS to Maine's economy and businesses, among other issues.

**2021-2022 Membership**

The USM Board of Visitors began 2021-2022 with twenty members (not including the immediate past president). There was one vacancy during the year due to a resignation for personal reasons. There were nine men and eleven women. Thirteen members reside in Portland or its surrounding southern Maine communities; five reside in Lewiston/Auburn; one resides in the mid-coast region, and one resides in another area of Maine.

Members' professional backgrounds:

- Arts (3)
- Government/State/Economic Development (3)
- Real Estate (3)
- Financial (2)
- Technology and Manufacturing (2)
- Architecture (1)
- Consultant (1)
- Education/Youth Services (1)
- Healthcare/Medical (1)
- Law (1)
- Nonprofit Management (1)
- Retired (1)

**Officers**

Chair: Luc Nya

Vice-Chair: Beckie Conrad (Served as vice-chair August, October, April, and June)

Neil Kiely (Served as Interim Vice-Chair for December and February)

**Schedule**

The USM Board of Visitors met six times in 2021-2022. The first five meetings were held remotely over Zoom with the final meeting of the year being in-person with a Zoom option. The Annual meeting is scheduled in June each year.

**Meetings and Agenda Items:**



**Friday, August 27, 2021**

Chair Nya welcomed everyone to the first BOV meeting of the 2021-2022 academic year and allowed new members introduce themselves. New member Muhidin Libah was unable to join the meeting. Vice Chair Eberle spoke to Annie King's background and contributions and President Cummings spoke to Muhidin's background, his insights into the Lewiston-Auburn community, and reiterated USM's commitment to move the L-A area forward. President Cummings then turned the floor over to members of his cabinet to provide updates regarding Finances and the campus development projects, Enrollment, the Lewiston-Auburn Community Needs assessment, 'Great Colleges to Work For' survey, and the Great University campaign. The Board then provided helpful feedback and had additional questions regarding the University's financial standing through the pandemic, how students received federal relief funds, and what was being done to address the soft spots of the 'Great Colleges' survey. Additionally, Board members spoke to the successes of the Foundation's "quiet" portion of the Great University campaign.

12 of 20 BOV members attended.

**Friday, October 22, 2021**

The October meeting began with Chair Nya informing the Board that Vice Chair Eberle has resigned from the Board for personal reasons and that Beckie Conrad would be serving as Vice Chair of the board. New member to the Board Muhidin Libah was able to introduce himself to the Board and is excited for the opportunity to support USM and uplift the L-A community. President Cummings provided an update on the University, highlighting a transformative \$10M gift towards the Center for the Arts. The Board discussed an update from Enrollment and the impact the pandemic has been having on students. President Cummings also spoke on his recent announcement to step down as President and return to teaching. The timing of his announcement was to give enough time for a full search and he spoke with the Chancellor, who has committed to completing a fully transparent search as to not create instability within the USM community. BOV Member Annie King presented on her perspective as a High School guidance counselor, both positively and negatively and how it related to the College process. The Board then concluded their meeting discussing how to identify and recruit new members and to seat a new Chair of the membership subcommittee.

10 of 20 BOV members attended.

**Friday, December 10, 2021**

Chair Nya began the November meeting by reading a statement from Jane Eberle regarding her decision to step down from the Board. Chair Nya also informed the Board that Beckie Conrad, through her professional role as a consultant, would be leading the University's needs assessment of the Lewiston Auburn Campus and Neil Kiely would be serving as Vice Chair in her place. Next University of Maine System's Chief Legal Officer, Jim Thelen provided an update regarding the search for the next USM President. Jana Lapoint will be representing the USM Board of Visitors as part of the 17-member search committee. A healthy discussion proceeded touching upon logistics and search involvement to the important characteristics and values the Board holds in the new President. The meeting then continued with an update from Foundation President Ainsley Wallace on the fundraising campaign. The Board was then joined by the University of Maine System's marketing agency, VisionPoint, for a "listening session". VisionPoint asked the Board their perceptions of USM, what it's unique traits and brand are.

14 of 20 BOV members attended.

### **Monday, February 11, 2022**

The Board's February meeting began with Chair Nya announcing that Jana Lapoint had been asked to chair the Board's nomination committee. Jana and others spoke to what they are looking for in candidates, what the role of the nomination committee will be, and asked if there were any current members who would like to serve on the committee. This also developed into a discussion surrounding executive positions on the Board and Chair Nya's desire to make the Board as transparent as possible. President Cummings then continued the meeting with updates on the University highlighting efforts taken to keep the community safe during the pandemic, how federal relief funds have been distributed, and construction progress before turning over the presentation to Vice President for Enrollment Management Nancy Griffin. Vice President Griffin then gave an overview of Spring enrollment touching upon efforts to retain students. Data from USM's recent 'Admitted Student Questionnaire' provided heavy discussion on how USM is perceived and how the University and landscape of Higher Education has changed. Provost Uzzi then continued by providing an update on Academic and Student Affairs. As the meeting concluded President Cummings and Provost Uzzi recused themselves while Jana Lapoint provided an update on the Presidential Search Committee.

14 of 20 BOV members attended.

### **Friday, April 8, 2022**

April's Board meeting began with membership nomination, discussion, and votes. The Board will have 3 openings due to resignations and members terming out. Nominees' merits and commitment they will be able to make were discussed and 4 potential members were identified. Three were voted as primary members and 1 as an alternate. Vice President Griffin presented an enrollment update and campaign the University would be undergoing to help recruit and retain students. Member Annie King continued the momentum of Vice President Griffin's presentation and provided an update on what she has been seeing and hearing from colleagues in High School. The USM Foundation provided an update on the campaign, the plans for a launch party and an introduction of the new USM President. President Cummings and Beckie Conrad provided an update on the Lewiston Auburn Campus and five areas of focus. The Board was then joined by USM's new Global Talent Navigator Marina Chakmakchi, who will be supporting students who have credentials from a previous international institution and helping them get back on that path in the United States. This was the result of an initiative led by Board Chair Nya and Julia Trujillo.

11 of 20 BOV members attended.

### **Friday, June 9, 2022**

The annual BOV meeting was the first hybrid meeting the Board has had in 2 years and began with members who were able to join in-person catching up. Chair of the nomination committee Jana Lapoint then began the meeting with taking a vote on BOV members whose terms needed to be renewed. Julia Trujillo, Adam Lee, and Chris Lavoie were all renewed. Kim Hamilton and Jennifer McCarthy both asked to not be renewed and their resignations were accepted, as were the resignations of Jane Eberle and Kent Person. Roxane Cole terms out after 9 years on the Board and her contributions were recognized. Jana then continued with Chair and Vice Chair nominations, where Beckie Conrad and Julia Trujillo were

approved respectively. The Board then voted on the proposed dates for the upcoming Academic Year, which were approved. Beckie Conrad provided a presentation on her findings regarding the LAC needs assessment. This led to a robust discussion of the Lewiston Auburn community and how the BOV can support USM in the area. The Board was joined virtually by incoming President Jacqueline Edmondson for a short introduction. President Cummings then presented his final State of the University presentation highlighting the recent Commencement, updates on the Portland Residence Hall, Career and Student Success Center, Parking Garage, and Center for the Arts.

12 of 20 BOV members attended.

Submitted by	Luc Nya, Chair USM Board of Visitors (2019-2022) Beckie Conrad, Chair USM Board of Visitors (2022-Present)
Date	10/13/2022

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# UNIVERSITY OF MAINE AT FARMINGTON:

DISTINCTIVE FEATURES, BARRIERS TO SUCCESS, AND A VISION OF OUR FUTURE

# UMF'S DISTINCTIVE FEATURES



# BARRIERS TO SUCCESS



# UMF'S FUTURE



# Vice Chancellor for Research & Innovation Update: UMS Research to Inform Public Policy

November 14, 2022

**Joan Ferrini-Mundy**

*Vice Chancellor for Research & Innovation, University of Maine System  
President, University of Maine and University of Maine at Machias*



## Genome-editing Technology Advisory Panel

### Gene-editing in Health and Bioscience

*Dr. Ben King*, UMaine Department of Molecular and Biomedical Sciences

### Gene-editing in the Natural World

*Dr. Diane Rowland*, UMaine College of Natural Sciences, Forestry and Agriculture

*Dr. Melody Neely*, UMaine Department of Molecular and Biomedical Sciences

### Gene-editing and the Humanities

*Dmitry Bam*, Maine Law

### Supporting a Vibrant BioTech Sector

*Dr. Joan Ferrini-Mundy*, UMS and UMaine



## Informing Research-Based Education Policy

### Maine Education Policy Research Institute

- 25-year partnership to collect and analyze education information and perform research for the Legislature, stakeholders
- Co-directors Dr. Amy Johnson (USM) and Dr. Janet Fairman (UMaine), contributions from faculty, staff and graduate students with content knowledge

*“MEPRI was **essential to our work**. Every bill has a public hearing and a work session, and in the public hearing we get a lot of anecdotal testimony, which is wonderful, but you can’t base policy on it. **We need facts and data**, and that’s what MEPRI gives us.”*

—Hon. Tori Kornfield

*“By the end of my tenure, MEPRI was **a very valued and trusted source of information**. It is critical and will be even more so in the future as people have more trouble figuring out if they trust sources of information.”*

— Hon. Brian Langley



## Shaping Climate and Energy Action Through Research & Innovation

- World-class UMaine Climate Change Institute directed by Dr. Paul Mayewski, Distinguished Maine Professor Dr. Ivan Fernandez, etc.
- UMaine Natural Climate Solutions Initiative to evaluate ways to decrease GHG emissions through forest and ag management, informing state and federal policy and practices
- UMaine floating offshore wind research: technology and impacts
- Margaret Chase Smith Policy Center applied research for Maine DOT led by Dr. Jonathan Rubin: Cost-effective and equitable GHG emissions reductions in Maine transportation, credit enhancement strategies for higher efficient vehicles in Maine, etc.
- Congressional testimony: UMaine researcher Dr. Rachel Schattman on what farmers need to adapt sustainable climate-friendly practices, UMaine Industry Liaison Shane O'Neill on forest economy workforce research

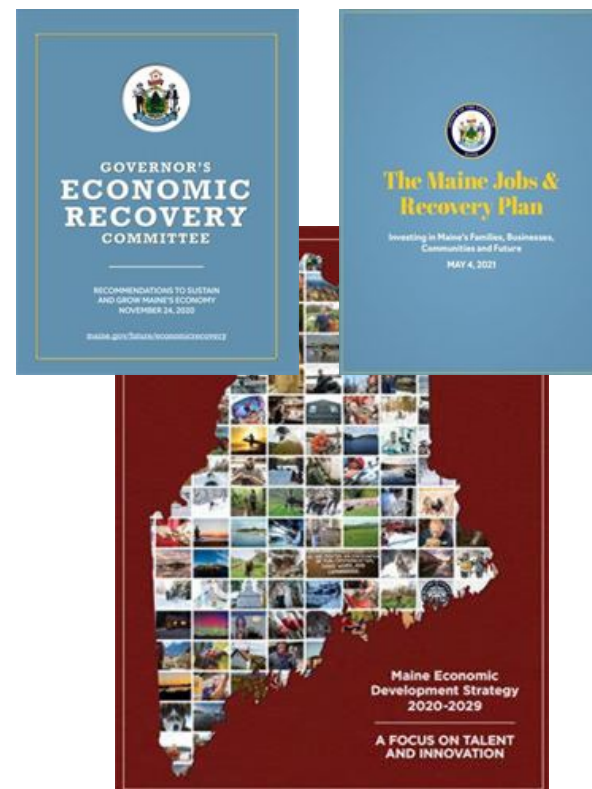


Two dozen UMS experts informed creation and implementation of state climate action plan through service on scientific and technical committees



## Data-Driven Economic Policy and Planning

- UMaine's Dr. Andy Crawley led analysis for 10-year economic plan to determine Maine's strengths for which there is global opportunity
- Maine EDA University Center (UMaine/USM): Joint effort to provide econ. development community with technical assistance, applied research and outreach
- USM's Catherine Cutler Institute research: economic security of older women to inform policy led Elizabeth Snow
- New Maine Economic and Workforce Advancement Research Institute to inform IDEA Cmte.





## Stewarding and Adding Value to Our Natural Resources

- Value-add biobased products using Maine's forest resources
- Wild blueberry research: Genetics, climate, picking, packing and processing
- Marine resources amidst changing climates and markets including lobster, aquaculture
- Understanding and reducing vector-borne diseases



*"We need more blueberries more consistently to be produced every single year, and through advancements and understanding, knowledge and techniques, we can achieve that." - Wyman's agronomist Bruce Hall*

## Understanding and Improving Health Outcomes

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### Opioid epidemic

- UMaine's Dr. Marci Sorg focuses on the social determinants of health related to substance use disorder, tracks overdose deaths for State, and societal costs
- USM's Catherine Cutler Institute Substance Abuse Research & Evaluation Unit: Rural practitioners and stakeholders baseline needs assessment

### Rural health and wellbeing

- Maine Rural Health Research Center at USM's Catherine Cutler Institute
- Maine Public Health Institute at USM's Catherine Cutler Institute
- UMaine Center on Aging
- UMaine Center for Community Inclusion and Disability Studies
- UMaine Institute of Medicine
- Downeast Health Research Collaborative (UMM/UMA/UM)



## Follow Along to Learn More



## Update on Recent VCRI Activities

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- **Convening of VCRI Research Leaders Group** to connect, collaborate, identify resources/needs
- **Implementation of Maine Jobs & Recovery Plan-funded projects** ongoing
  - UMF child care center construction
  - Aquaculture internships at DEI
  - Black Bear Consulting Hub (student support for pandemic-impacted Maine companies)
- **\$53.5M in Congressionally Directed Spending for UMS-led** projects requested by Sens. Collins and King and Rep. Golden pending in draft FY23 federal appropriations bills, overseeing **implementation of FY22 funded projects**
- **First-ever VCRI-led System-wide call for concept papers** for funding opportunities generated 113 submissions with ideas from all UMS universities and the law school





# Your Questions





**UMS TRANSFORMS**  
**Making a Difference for Maine:**  
*Access, excellence, and opportunity for  
all Maine students*

Update for the UMS Board of Trustees  
**November 13 – 14, 2022**



## UMS TRANSFORMS is a historic investment in Maine's public universities.

- Building on a 45-year history of support, UMS begins discussions with HAF on the *largest ever investment to public higher education in New England* October 2019
- **\$90M** *UMaine Athletics Facilities Master Plan* July 2020
- **\$150M** *UMS TRANSFORMS: Revitalizing the University of Maine System* Aug 2020
- Harold Alfond Foundation announces *\$240M investment in Maine's largest educational, research, innovation and talent development asset* October 2020





## Four key initiatives roll out over the next 10 - 12 years with funding for all UMS universities.



**\$75M**

**\$75M match**

Maine College of  
Engineering,  
Computing and  
Information Science



**\$55M**

**\$50M match**

Maine Graduate  
and Professional  
Center



**\$20M**

**\$25M match**

Student Success  
and Retention



**\$90M**

**\$20M match**

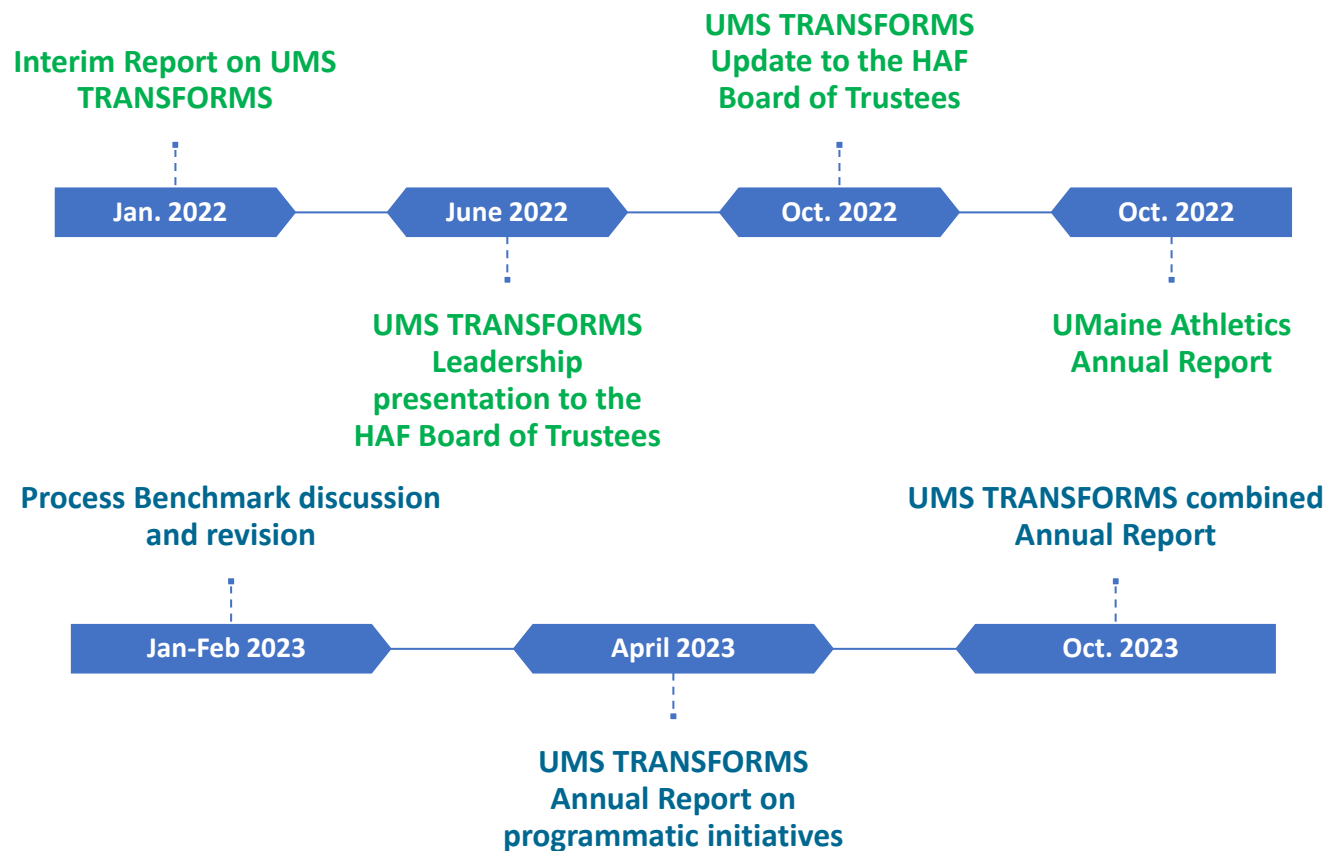
Black Bear  
Athletics



## We have a strong leadership team with System-wide representation.







				<b>Executive Chair</b> <b>Dannel Malloy</b> Chancellor	<b>Senior Project Staff</b> <b>Grace Garland</b> Project Director
<b>Finance Leadership</b> <b>Ryan Low</b> Vice Chancellor for Finance and Administration	<b>Principal Investigators</b> <b>Joan Ferrini-Mundy</b> Vice Chancellor for Research and Innovation and President, University of Maine and UMaine Machias			<b>Carolyn Dorsey</b> Acting Vice Chancellor for Strategic Initiatives	<b>Amon Purinton</b> Assistant General Counsel, UMS
					<b>Meredith Whitfield</b> Chief of Staff to the President of the University of Maine
<b>UMS TRANSFORMS Initiative leads and co-leads</b>					<b>Operations Leads</b>
<b>Student Success and Retention</b>	<b>Maine College of Engineering, Computing and Information Science</b>	<b>Maine Graduate and Professional Center</b>	<b>Athletics</b>	<b>Finance / Fundraising / Communications and Marketing</b>	
<b>Lead: John Volin</b> Executive VP and Provost, University of Maine  <b>Co-lead: Deborah Hedeon</b> President and Provost, University of Maine at Fort Kent	<b>Interim lead: Mohamad Musavi</b> Interim Dean, UMaine College of Engineering  <b>Co-lead: Penny Rheingans</b> Dir. of UMaine School of Computing and Information Science  <b>Co-lead: Jeremy Qualls</b> VP of Research and Innovation University of Southern Maine  <b>Co-lead: Joe Szakas</b> Interim President / Vice President of Academic Affairs University of Maine at Augusta	<b>Lead: Leigh Saufley</b> President and Dean, University of Maine School of Law  <b>Co-lead: Jackie Edmondson</b> President, University of Southern Maine  <b>Co-lead: Joan Ferrini-Mundy</b> President, University of Maine and University of Maine at Machias	<b>Co-lead: Samantha Hegmann-Wary</b> Interim Director of Athletics, University of Maine  <b>Co-lead: Judith Rosenbaum-Andre</b> Associate Professor Communication & Journalism University of Maine  <b>Co-lead: Seth Woodcock</b> Senior Associate Athletic Director for Development and Capital Planning University of Maine	<b>Ryan Low</b> <i>Finance</i> Vice Chancellor for Finance and Administration  <b>Jeff Mills</b> <i>Philanthropy</i> President and CEO of the University of Maine Foundation <b>Renee Kelly</b> <i>Corp &amp; Fnd</i> Assistant VP for Innovation and Economic Development at UMaine <b>Jason Charland</b> <i>Fed Grants</i> Sr. Advisor to the President of the University of Maine (for research) <b>Ryan Low</b> <i>State Funding</i> VC for Finance and Administration  <b>TBD</b> Communications & Marketing	

## We are engaged with the Harold Alfond Foundation.







1









## Repaving MaineStreet – Why?

- **MaineStreet:** Enterprise Resource Planning (ERP) platform supporting the University of Maine System
  - PeopleSoft ERP
    - Campus Solutions (Student Information System)
    - Human Capital Management (HR System)
    - Financials (Budget)
- Implemented 18+ years ago (2004-2009)
  - Driven by need to migrate legacy SIS (ISIS) from mainframe
  - Many configuration decisions influenced by desire to maintain pre-existing, familiar business processes (ISIS), including:
    - **Separate configurations** supporting each campus
    - Maintaining **separation of data by campus**











Repaving MaineStreet  
*The Road to the Future*




UNIVERSITY OF MAINE SYSTEM

2










# Repaving MaineStreet – Why?










Maine's  
Public  
Universities  
UNIVERSITY OF MAINE SYSTEM

- **Key challenges with the current platforms include:**
  - Ongoing maintenance of large number of **customizations**
  - **Less-than-optimal process standardization** across the UMS
  - **Lack of data and coding consistency** inhibit system-wide collaboration and limit platform functionality
  - **Code-based barriers** further inhibit academic collaboration across institutions




Repaving MaineStreet  
The Road to the Future  
3

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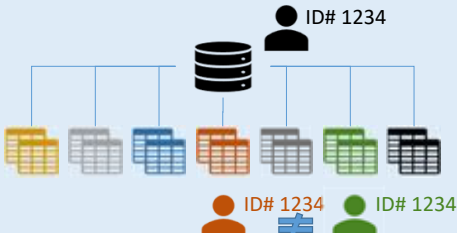








# Repaving MaineStreet – Why?




Maine's  
Public  
Universities  
UNIVERSITY OF MAINE SYSTEM

- **Current Data Architecture Compromises:**
  - Student record portability
  - Course cross-listing
  - Collaborative degree programming
  - Data access, retrieval, analysis










- **Future State Opportunities:**
  - Re-architect data structure to take advantage of shared data structure
  - Improve native credit options
  - Expand educational access across UMS
  - Enhance operational efficiency



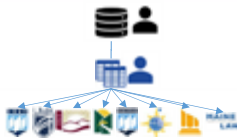

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## Repaving MaineStreet: Genesis








- **Partnered with Huron Consulting to:**
  - *assess* current state business processes
  - *identify* opportunities for improvement
  - *recommend* a plan to achieve UMS strategic outcomes through the realignment of technological tools, processes, and policies
- **Key Recommendations**
  - Leverage experience to **re-implement the Campus Solutions SIS** with **Unified Accreditation** and **Coding Consistency** as guiding principles
  - Take advantage of **new/emerging cloud-enabled functionality** in the ERP (**HR & FN**)
  - **Eliminate code customization** in favor of configurable functionality to **improve operational efficiency** and eliminate technical debt

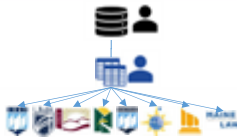










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## Repaving MaineStreet: Overarching Goals

- **Improve the MaineStreet experience for students, faculty, and staff**
  - Mobile-friendly and easily accessed self-service functionality
  - Enhanced Degree Planning/Audit Functionality
- **Adopt best practices for process improvement and standardization**
  - Leveraging delivered platform functionality
  - Workflow automation
- **Enhance data consistency across core administrative systems**
  - Improve process efficiency and
  - Expanded opportunity for inter-campus collaboration
- **Minimize need for individual third-party systems**
  - Enhanced data integration between critical systems



















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## Repaving MaineStreet: Initiatives

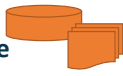




**Maine's  
Public  
Universities**








UNIVERSITY OF MAINE SYSTEM

- **Completed**
- Launch of the **"New" MaineStreet Experience**
  - Improved navigation; mobile friendly access
  - Default interface for all students
  - Enhanced 'Act as User' functionality for advisors
- Launch of the interactive **Schedule Builder** application
  - Allows students, advisors and staff to build dynamic schedules for a term based on the student's degree requirements, availability and selected set of courses.
- Financial Aid – Single OPEID
- Course Grading Integration between Brightspace & MaineStreet




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## Repaving MaineStreet: Initiatives





**Maine's  
Public  
Universities**

UNIVERSITY OF MAINE SYSTEM

- **In Progress**
- Ongoing work on the **Unified Course Catalog** initiative
- Revision of the **'Study Away'** (inter-campus credit transfer) form/process
- Initial Planning and Design for Cloud-enabled HR and FN migrations



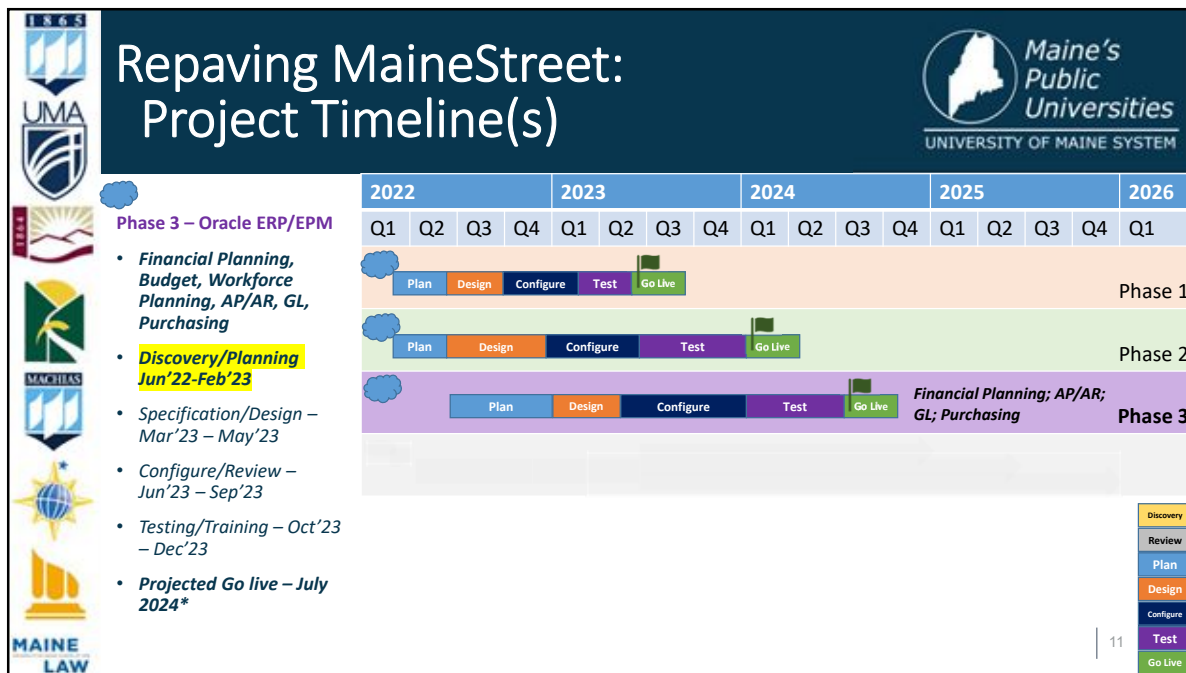
Repaving MaineStreet  
*The Road to the Future*

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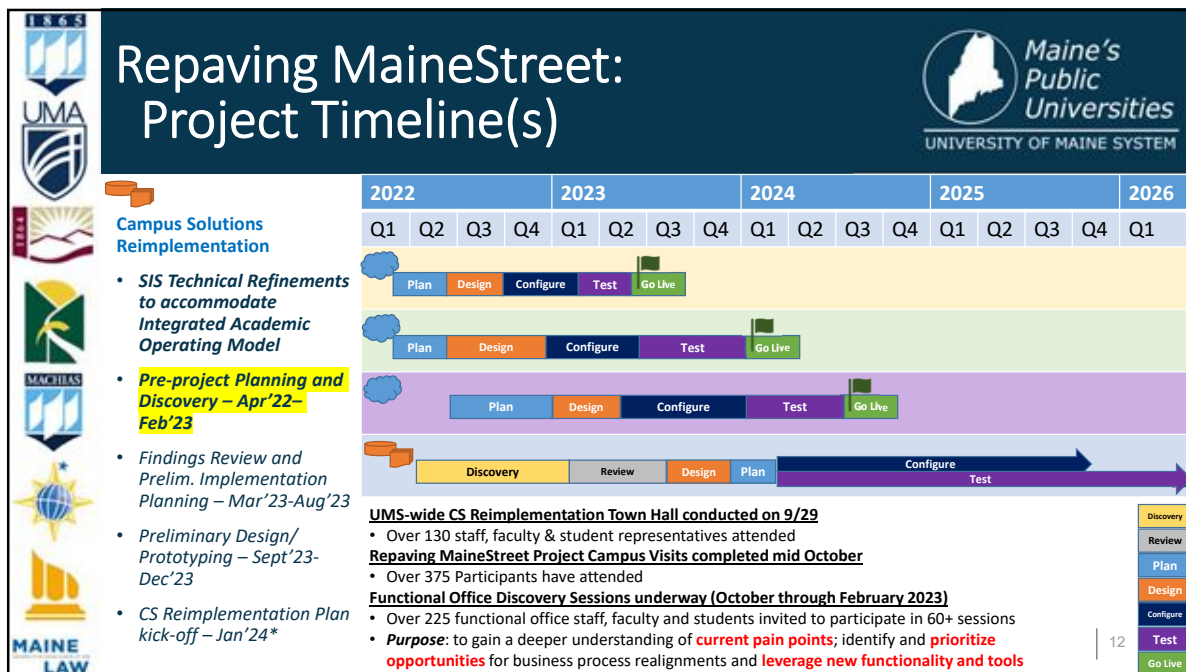
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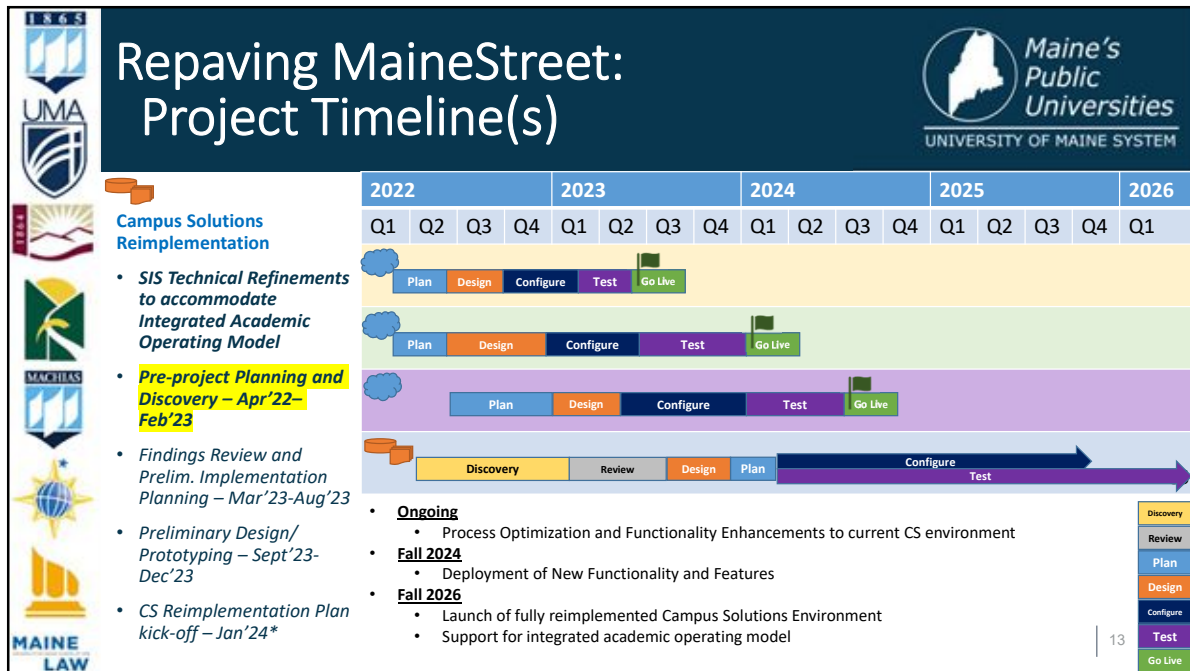




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## Repaving MaineStreet

UNIVERSITY OF MAINE SYSTEM

**Official Project Website**

- [www.maine.edu/information-technology/repaving-mainestreet/](http://www.maine.edu/information-technology/repaving-mainestreet/)
  - Includes [Repaving MaineStreet Questions & Input Form](#)

Thank You for your continued  
commitment and support of this critical  
initiative!

Repaving MaineStreet  
The Road to the Future

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