

# Making a Difference

A monthly sampler of educational, cultural, and economic contributions of Maine's public universities

## USM & UMaine Announce \$20M Federal Grant

ORONO – Gov. John Baldacci and other state government leaders recently joined UMaine and USM officials to announce a \$20 million National Science Foundation EPSCoR (Experimental Program to Stimulate Competitive Research) grant to create the Center for Sustainability Solutions.

The five-year project is focused on creating a sustainable society by bringing together core research teams from UMaine and USM, as well as government and industry stakeholders. The center will also create partnerships with most of Maine's colleges and universities for research and education efforts in the area of sustainability.

The project will directly support 200 to 300 jobs, mainly in the research sector, while also providing for statewide education initiatives at all grade levels in science, technology, engineering, and mathematics.

The ultimate goal is to build capacity for generating solutions to sustainability problems such as renewable energy, alternative transportation, and water resource management.

## Students "Discover" Nursing at UMFK

FORT KENT – A dozen high school students attended a four-day "Nursing Discovery Camp" at UMFK and Northern Maine Medical Center.

Participants were involved with hands-on activities, lectures, and job shadowing with nurses. They learned how to take vital signs and perform basic first aid skills. In addition to being introduced to the overall field of nursing, the students also explored specific nursing fields including medical-surgical, obstetrical, operating room, emergency, intensive care unit, and advanced practice nursing.



UMPI students Sarah Ryan and Dan Ballanger are spending their summer mapping streets and traffic signs so they can create a GIS database for the City of Presque Isle's Public Works Department.

## UMPI students complete community GIS projects

PRESQUE ISLE – This summer, UMPI students are completing two significant GIS projects in conjunction with the City of Presque Isle and the Presque Isle Historical Society. GIS [Geographic Information Systems] is a computing system that captures, stores, analyzes, and displays geographic information and spatial data.

Students Sarah Ryan and Dan Ballanger are mapping streets and traffic signs and collecting data about them so they can build a GIS database to help the Presque Isle Public Works Department better manage its street infrastructures.

Students Megan Pryor, Ashlee Pryor, Sherry Cole and Robert Baldwin are working on a project funded by the Maine Economy Improvement Fund's Small Campus Initiative Fund to develop a GIS database for the Fairmont Cemetery. They are collecting cemetery and burial data, such as the plot numbers and information found on gravestones, for more than 2,000 burials at the site. This will serve as a resource for conservation, interment planning, and management of facilities, grounds and records. The completed GIS database also will provide important data for researchers in the fields such as history and genealogy.

## UMF & UMaine Engineering to Offer Dual Degree Program

FARMINGTON – UMF and UMaine’s College of Engineering are offering a dual degree program, in which students will graduate in five years with both a bachelor of arts degree from UMF and a bachelor of science degree in engineering from UMaine.

Beginning in fall 2009, students enrolled in the joint program will spend their first three years at Farmington pursuing their major course of study towards their UMF degree and completing general education requirements and engineering prerequisites in math and science. The final two years will be spent on the UMaine campus completing engineering coursework.

Combining engineering and liberal arts programs is becoming more popular as engineers recognize the need for greater exposure to humanities along with technical skills, and also as engineers are called upon to work in community, corporate, legal, international, and other diversified settings.

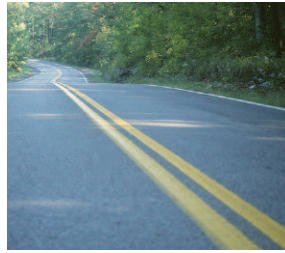


## Students Get “MESSY” at UMM Camp

MACHIAS – Twelve middle and high school students spent part of their summer getting messy at the first-ever Machias Environmental Summer Session for Youth (MESSY) camp, which was held at UMM in late July.

The camp was a week-long residential experience focused on environmental stewardship and sustainability. The camp’s goals are to teach students about current environmental challenges, help them create solutions to real-world problems, and encourage them to become better stewards of the environment.

Students explored coastal marine life at various local waterways, created paper from recycled materials, and made a video documentary about the environment. Campers worked directly alongside UMM faculty and students, actively participating in important work in the field and in the classroom. The camp experience mirrored the hands-on, experiential learning that is characteristic of UMM’s degree programs. To learn more about MESSY, visit [www.umm.maine.edu/messy](http://www.umm.maine.edu/messy).



## USM Receives \$1.6M NIH Research Award

PORTLAND – USM’s Maine Center for Toxicology and Environmental Health, has received a \$1.6 million award given by the National Institutes of Health (NIH) to fund research

on how chromium causes normal cells to develop into tumors.

The grant makes it possible for Dr. John Wise to continue his research into how chromium alters cell division, thereby causing normal cells to become tumor cells. Chromium is widely recognized as a carcinogen, but it remains a popular additive in industrial products such as road paint and anti-corrosives. Chromium is also used in boat paints, metal plating, and fuel combustion. Wise’s research has shown even short-term exposure to chromium produces an abnormal number of chromosomes, yet it is still unknown how this results in cancer.

## UMaine-Based Drug Mail-Back Program Expands

ORONO – The first-in-the-nation pharmaceuticals mail-back program launched in 2007 by UMaine’s Center on Aging with partnering agencies will more than double in size and scope.

In a new phase of the program, 20,000 mail-back envelopes will be distributed throughout Maine to more than 100 pharmacies, medical facilities and community agencies. So far, more than 1,000 pounds of unused and unwanted medicines have been mailed by 2,000 participants to the Maine Drug Enforcement Agency’s Westbrook office for proper disposal. The largest category of mailed-back drugs—25—percent includes pharmaceuticals like antidepressants and antipsychotic drugs, followed by heart medicines.

The program is cutting the flow of medications into the environment or into the hands of children or criminals.

## Hollywood Comes To Gorham

GORHAM – USM’s EAST-2 (Eastern Alliance in Science, Technology, Engineering, and Mathematics for Students with Disabilities) offered three summer sessions designed to encourage students with disabilities to participate in science, engineering, technology, and mathematics fields and pursue them as careers.

A four-day workshop titled “Hollywood Comes to Gorham” exposed students to video production, directing, and editing. Fifteen students from Bonny Eagle, Casco Bay, York, Deering, and Portland high schools worked with faculty and industry professionals, and toured a local television studio in Portland. All video production and editing sessions were held on the Gorham campus. For more information visit <http://eastalliance2.org/>.



### UMA's Mile of Art

AUGUSTA – The annual UMA Leo Marcus Memorial “Mile of Art” event took place on the wooded fitness trails that run along the campus. This year’s theme was “Keep Your Mind Wide Open.”

A unique festival in the woods that attracts hundreds of people every year, the Mile of Art featured exhibits of paintings, sculpture, pottery, photography, glass works, baskets, and crafts by over 50 local artists.

Musical performances included UMA’s Jazz Ensemble, the Dream Catchers, African drummers, and the Stone Quarry Express.



### Neonatal Simulator Mannequins Debut in Fort Kent

FORT KENT – Last year UMFK received a \$99,000 grant from the Davis Education Foundation toward the purchase of neonatal simulator mannequins—mother and child—which recently made their debut in a classroom setting at UMFK. Officials from Northern Maine Medical Center also attended the event.

Due to the low birth rate in Aroostook County, UMFK nursing students often graduate with limited obstetrical experiences. The Enhancing Birthing and Neonatal Education program employs technology to fill the experiential gap. Human-patient simulators allow students to learn by participating in real-life patient scenarios and emergencies with a life-like mannequin that responds to human interventions.

### UMPI & Other Local Organizations Offer “Music in the Park” Series

PRESQUE ISLE – Riverside Park in downtown Presque Isle is once again filled with music on Sunday afternoons this summer as the Second Annual “Music in the Park” series runs from July 19 to August 9.

The free concert series include acts such as David Mallett, premier Maine singer-songwriter; Shamou, a Persian drummer and percussionist; Pat Pepin, a saxophonist, blues singer, and band leader; and The Travis Cyr Project, a trio of folk musicians.

The events are organized by UMPI staff and have received major support from several area businesses and organizations in order to present this concert series.

Last year, the Music in the Park series was offered for the first time by a \$7,500 grant from the Maine Arts Commission. This year, however, with the grant completed and a strong desire in the area to see the series return, all of the funding for the series is being raised through donations and sponsorships.

### USM Hosts Grades 3-8 Teachers

PORTLAND – Sixteen Maine teachers are spending two weeks of their summer getting a firsthand look into the world of microbiology, virology, bacteriology, immunology, cancer biology, electron microscopy, and the physics of light with the help of USM faculty and staff, and some highly specialized microscopes.

The first step of the project is to introduce the teachers to detailed, visual images of microorganisms and cells using advanced lab equipment, including a digital transmission electron microscope. In addition, faculty and staff will work with teachers to develop visual resources for elementary and middle school classroom uses throughout Maine.

The program is made possible through a five-year Science Education Partnership Award and funded through a \$1.3 million grant from the National Center for Research Resources and the National Institutes of Health. These awards bring together biomedical researchers, educators, and others to create programs that give third through eighth grade teachers, students, and the general public a better understanding of life science.

Participating teachers represented: Brunswick, Buxton, Freeport, Lewiston, North Berwick, Old Orchard Beach, Portland, Saco, and South Portland. For more information on the Department of Applied Medical Science, Engineering and Technology (ASET), see <http://www.usm.maine.edu/ams/>





## Universities Collaborate to Offer Teacher Certification at UMA

AUGUSTA – Chancellor Richard L. Patten and university presidents from

UMA, UMFK, UMM, and UMPI recently signed a formal “memorandum of understanding” officially creating a new partnership for teacher certification for students based at UMA.

The students will be able to enroll in program-specific classes at Fort Kent, Machias, and Presque Isle, while completing the remainder of their coursework at UMA. The classes will be offered via distance education technology including the Internet, interactive TV, and video conferencing.

Courses in elementary education will be offered from UMPI, with special education and secondary education courses delivered from Fort Kent and Machias.

The courses will be available beginning this fall.

## UMM Art Camp Focuses on the Environment

MACHIAS – Nearly 30 kids participated in UMM’s “Make – Create – Imagine” Art Camp which offered a variety of rich exploratory learning opportunities.

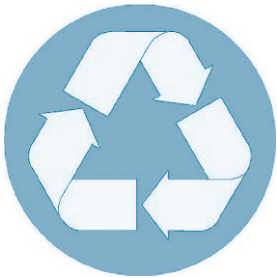
The camp emphasizes creativity with a focus on the environment, recycling everyday materials, and allowing the children to explore many different art mediums.

Students were encouraged to use their imaginations to create problem solve and discover confidence in their abilities.

Paper pulp from brown paper bags, bottles and cans, cardboard boxes, and onion bags were examples of the materials the students recycled and used in their artwork during the week. Along

the way, the students discussed how their actions were benefiting the environment.

The students’ focus on the environment even carried over to snack and lunch breaks. Throughout the week, all of the biodegradable waste was saved and disposed of in compost bins.



## UMaine Hosts Dropout Prevention Summit

ORONO – More than 250 state policymakers, stakeholders, lawmakers, and educators recently gathered at UMaine for the Maine’s Dropout Prevention Summit.

With funding from America’s Promise Alliance, founded by General Colin Powell and his wife Alma Powell to reduce school dropout rates, summit participants reviewed and consolidated multiple high school completion initiatives into a new statewide high school completion plan.

Maine’s 20-30 percent dropout rate ranks 13th nationally, but the goal of educators and policymakers is to further reduce dropout rates by promoting high school completion.

## Wide-ranging Recommendations Presented to UMS Trustees

BANGOR – A UMS long-term financial sustainability initiative known as “New Challenges, New Directions” (NCND) moved another step closer to completion in July when the chairs of three major work groups presented their recommendations to the UMS Board of Trustees.

The presentations included dozens of proposed modifications intended to reduce costs and increase revenues while enhancing the university system’s academic quality and affordability. A common point was a stronger emphasis on “tailoring” UMS’s programs and resources to advance a “coordinated public agenda” that supports Maine’s educational, economic, social, and cultural needs and opportunities.

Proposed by UMS Chancellor Richard L. Patten and authorized by the UMS Board in January, NCND was undertaken in light of a projected \$42.8 million budget shortfall over the next four years. The shortfall is based on demographic and economic conditions affecting Maine’s public universities and the State.

The Chancellor, university presidents and trustees are reviewing the reports which will serve as input to their “New Challenges, New Directions” plan for achieving long-term fiscal sustainability.

A final public comment period on the plan will be held from mid-September to mid-October, with possible revisions to follow. The final comprehensive plan is expected to be presented to trustees in November for approval.

The full reports of the three work groups, along with a distance learning report, may be found at [www.maine.edu/UMSNCD](http://www.maine.edu/UMSNCD).