The University of Maine

Orono, ME 04469

Fall 2012 Progress Report

Submitted to the New England Association of Schools & Colleges

Commission on Institutions of Higher Education

This report is submitted as requested in response to the action taken by the Commission on Institutions of Higher Education at its September 18, 2009 meeting with respect to the University of Maine. The report contains an update on the institution's success in:

1) its strategic planning process;

2) implementation of a comprehensive approach to the assessment of student learning; and

3) implementation of plans to address deferred maintenance and improve its physical facilities

Report prepared on 8-10-2012

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Introduction
by Paul W. Ferguson, President

I am pleased to send to you the Fall 2012 Progress Report requested in the November 17, 2009 NEASC letter to Dr. Robert A. Kennedy, my predecessor as President of the University of Maine.

In that letter, NEASC requested "that the University submit a report…that gives emphasis to the institution's success in:

1) completing its strategic planning process;
2) implementing a comprehensive approach to the assessment of student learning;
3) implementing its plans to address deferred maintenance and improve its physical facilities."

Strategic Planning

The University of Maine engaged in strategic planning with the last plan, "UMaine Leads - The University of Maine Strategic Plan 2006-2011," ending as I assumed the Presidency on July 1, 2011. As a result of extensive conversations among many UMaine constituents, the University began a new strategic planning process in Fall 2011. This process was broadly inclusive of the entire campus community and other stakeholders. The plan, entitled "The Blue Sky Project: Reaffirming Public Higher Education at Maine's Flagship University," provides a fresh vision and direction for the University. As our website states: "This strategic planning document will provide the foundation and direction for growth and positive change at the University of Maine over the next five years. We have strived to clarify a bold vision and develop pragmatic strategies to achieve it."

A brief introduction to the Blue Sky Plan is available in the Focus Areas section of this report. A copy of the 14-page Executive Summary is in Appendix A. The full 60-page strategic plan can be downloaded at the following Internet link: http://umaine.edu/blueskyplan/files/2009/06/Blue-Sky-Plan1.pdf

Assessment of Student Learning

This section of the Report, authored by a team of faculty and administrators, outlines the actions taken towards the goal of establishing a comprehensive assessment of student learning since 2009. A particular highlight is the substantial progress in refining assessment for our General Education curriculum. Although there is more to do in regards to comprehensive assessment, through the hard work of the General Education Committee of the Faculty Senate, UMaine has made significant progress over the last three years. Additionally, the University of Maine System is presently evaluating whether a System-supported assessment software program such as TK20, which is already being

used by several of the colleges of education in the System, would be advantageous for all universities within the University of Maine System.

Deferred Maintenance

This summary was prepared by the Office of the Vice-President for Administration and Finance and details the University's progress in reducing deferred maintenance for our physical plant. As detailed in the summary, the challenges of Deferred Maintenance continue at most University campuses. However, UMaine and the University of Maine System continue to seek creative strategies to actively address this issue in a long term and sustainable manner.

In addition to these three major focus areas and in the appendices, UMaine has initiated work on additional items requested for the Spring 2014 fifth-year interim report. As part of an aggressive approach to enrollment management, UMaine has recently hired Dr. Jimmy Jung as the Vice-President for Enrollment Management to "implement a coordinated approach to enrollment planning and management." The Blue Sky Plan addresses the "setting [of] academic, research and outreach priorities consistent with [UMaine's] mission and purpose;" which includes a strong commitment to "continue to implement a comprehensive approach to the assessment of student learning" as detailed in the Assessment focus area section.

I want to express my deep appreciation and thanks to you and the Commission for your constructive guidance in our process of continual quality improvement. If you have any questions for me, please do not hesitate to contact my office.

Institutional Overview

The University of Maine, founded in 1865, is the state's premier public university, located in the town of Orono. As Maine's land-grant university and the flagship institution in the University of Maine System, it is among the most comprehensive higher education institutions in the Northeast, attracting students from across the U.S. and more than 60 countries. It currently enrolls 11,168 total undergraduate and graduate students who can directly participate in groundbreaking research working with world-class scholars. Students are offered 88 bachelor's degree programs, 70 master's degree programs, 30 doctoral programs and one of the oldest and most prestigious honors programs in the U.S. The university promotes environmental stewardship on its campus, with substantial efforts aimed at conserving energy, recycling and adhering to green building standards in new construction.

The University of Maine research facilities are unique in function and design. UMaine is the only research institution in Maine to include large scale pilot-plant capabilities in its research facilities to demonstrate and commercialize real-scale R&D. Related research areas and facilities include pulp and paper, wood composites, food, aquaculture, nanotechnology (clean room), advanced manufacturing, supercluster supercomputing, and agriculture. Maine companies regularly use these facilities for their own business development purposes. UMaine's inventory of high-tech specialized equipment has over $30 million in value and is shared with research institutions throughout the state. The National Science Foundation ranks UMaine 93rd among public universities for the size of its research enterprise; it ranks UMaine 44th among those without a medical school. NSF reported expenditures for 2011 were $111.6 million.

As Maine's land-grant university, UMaine is part of the nationwide Cooperative Extension System, which works through the land-grant universities in each U.S. state. In addition to Cooperative Extension state offices in Orono, 16 county-based offices are located throughout Maine. These county offices are staffed by experts who provide practical, locally based solutions for farmers, small business owners, youth, parents, consumers, and others. Cooperative Extension educational efforts focus on: managing agriculture, natural resources, and the environment; enhancing economic opportunity; and encouraging lifelong wellness.

The University of Maine is a designated Sea Grant College. Sea Grant is a nationwide network (administered through the National Oceanic and Atmospheric Administration [NOAA]), of 32 university-based programs that work with coastal communities. The National Sea Grant College Program engages this network of the nation's top universities in conducting scientific research, education, training, and extension projects designed to foster science-based decisions about the use and conservation of our aquatic resources.

Areas of Focus

1) Completing the Strategic Planning Process

2) Implementing a Comprehensive Approach to the Assessment of Student Learning

3) Implementing Plans to Address Deferred Maintenance and Improve Physical Facilities

Area of Focus #1: Completing the Strategic Planning Process

University of Maine President Paul Ferguson has officially released a strategic plan that creates a blueprint for the state's flagship public university to become one of the most distinctive universities in the country for student achievement and community engagement.

The plan, "The Blue Sky Project: Reaffirming Public Higher Education at Maine's Flagship University," was accepted by the University of Maine System trustees at their board meeting in Bangor July 9, 2012.

The plan is centered around investing in UMaine's existing areas of distinction and launching a number of new initiatives to better align the university's resources and programs with the needs of the state. It outlines five strategic pathways, summarized as the "Five M's," and a series of related initiatives and strategies to transform UMaine in the next five years:

Maine's Renewal – Ensure that UMaine teaching, research, outreach, workforce and economic development program excellence are in close alignment with Maine's priority needs. Initiatives include increasing campus/private sector partnerships by 50 percent in the next five years, and aligning technology and educational programs with Maine's economic infrastructure needs.

Money and Management – Optimize operating efficiencies and control expenditures within a financially sustainable business model, and seek new and entrepreneurial revenue sources. Initiatives include a new enrollment management unit and a plan to potentially increase enrollment to 15,000 (from 11,168 in 2012), increasing the number of out-of-state and international students, and increasing academic partnerships with Maine's community colleges.

Morale and Marketing – Invest in faculty and staff professional development, refresh the UMaine brand and improve communication among all constituencies. Initiatives include establishing consistent and high-quality brand standards to better promote UMaine, harnessing the goodwill of alumni for student internships and career networking, and promoting UMaine's role in athletics as the state's only NCAA Division I school.

Mentoring and Modeling – Promote undergraduate and graduate opportunities for student success, including value-added residential life, research fellowships, internships, and more effective advising and learning environments. Initiatives include developing new models for learning to better prepare graduates for meaningful jobs and lives, establishing an outcomes-based assessment of all academic programs, and increasing the number of externally funded opportunities for hands-on student research.

Master Plan and Maintenance – Restore and create UMaine's physical plant and technology infrastructure to ensure a vibrant place of learning and discovery. Initiatives include a Total Cost of Ownership approach to managing UMaine's $1 billion in infrastructure and real estate, fully funding appropriate levels of campus upkeep and beautification, and continuing to implement campus sustainability initiatives.

Ferguson, who came to UMaine in July 2011 and was formally inaugurated as the 19th president this past April, began the "Blue Sky" project shortly after arriving on campus. From November 2011 to April of this year, a 26-member leadership team, made up of faculty, staff, students and alumni, met weekly to develop the plan. More than 30 informational meetings attracted hundreds of participants and more than 250 contributors submitted "blue sky ideas."

Area of Focus #2: Implementation of a Comprehensive Approach to the Assessment of Student Learning

Overview

The University of Maine was directed to show improvement in assessment in the Action Letter sent to then President Robert A. Kennedy on November 17, 2009 following our last accreditation review. We were found lacking in the development of "a comprehensive approach to the assessment of student learning" and were asked to show "success in implementing and supporting 'a broad-based approach to the assessment of student learning focused on educational improvement through what and how students are learning through their academic program . . .'" (p. 2) in reports to be filed in 2012 and 2014.

Since 2009, we have made substantial progress in course- and program-level assessment and the revision of General Education outcomes. In what follows, we outline:

- The scope and status of assessment initiatives undertaken since 2009;
- Our systematic review of General Education outcomes (May 2010 to April 2012); and
- A four-step approach to comprehensive assessment.

I. Initiatives for improvement

A. *Broad-based efforts*

Some unit- and college-based assessment work at UMaine is robust. Several professional programs, including Engineering, Nursing, and Social Work, have refined their use of formal assessment protocols as reflecting the requirements of their accrediting bodies. The College of Natural Sciences, Forestry and Agriculture has put in place a well-coordinated assessment process. The College of Education and Human Development has adopted and partly implemented the TK-20 system. The biological sciences have created a proprietary course management system (SYNAPSE) to capture data for course and program improvement. Each of these assessment modalities is appropriate to the outcomes and goals of the unit(s) it addresses.

Written goals and learning outcomes for all majors are published in the UMaine catalog, on college and department websites, and in a range of promotional materials. Each major has an assessment plan articulating students' progress toward goals and outcomes, and each plan is reviewed by faculty to improve student success and program quality. In its annual report, each college is asked to describe assessment progress for the units in its purview. Evidence suggests that programmatic assessment leading to substantive improvement is underway.

B. *Course-level assessments*

Course-level assessment is in place. Faculty and teaching assistants review evidence of student learning through tests, quizzes, recitations, papers, portfolios, artistic performances, group projects, and other assignments. In tandem with regular instructor-student communication and student evaluation of teaching, this evidence forms a feedback loop intended to produce incremental improvement. Capstone courses are another means of programmatic assessment, and the university also gathers indirect evidence of student achievement (see item E below). Chairs and directors provide deans with course assessment data in their annual reports that deans in turn share with the provost.

C. *Institutional support: CETA*

In 2010, UMaine's Center for Teaching Excellence was renamed the Center for Excellence in Teaching and Assessment (CETA), a move underscoring Academic Affairs' recognition of the relationship between excellent teaching and effective assessment. The director of CETA was newly tasked with:

- Assisting individual faculty and units with course- and programmatic assessment work, including revising learning outcomes, embedding outcomes in syllabi, assignments, and exams, and preparing units for accreditation reviews; and
- Advising the Associate Provost and Dean for Undergraduate Education about faculty perspectives on assessment; evolving norms, standards, and strategies on assessment regionally and nationally; potential avenues for achieving comprehensive assessment; and related matters.

As outcomes, we cite the following:

- Institutional Studies and CETA provide feedback to 39 departments about the clarity and coherence of their learning outcomes (or "goals") (May 2010). Outcomes are posted to department and/or college websites (Summer and Fall 2010).
- CETA facilitates a General Education "category workshop" (on the Writing Intensive category) for faculty to commence a discussion of how best to revise learning outcomes and assessment practices (August 2010).
- Institutional Studies and CETA review assessment-related data from 2010 college annual reports (October 2010).
- CETA works with departments, programs, and grant teams to produce assessment outcomes, rubrics and protocols (2010-2012), including:
    - Canadian-American Center grant renewal (successful)
    - CLAS NEH Challenge grant for Maine Humanities Center
    - Dept. of Animal and Veterinary Sciences student learning outcomes
    - CLAS/General Education faculty training grant
    - Dept. of Philosophy course assessments
    - Innovations Engineering student learning outcomes

D. *Institutional support: Assessment Advisory Board*

After discussing a range of options for optimizing productive communication about assessment, the Associate Provost for Undergraduate Education authorized the creation of the Assessment Advisory Board (AAB) comprising faculty representatives from UMaine's five academic colleges. After meeting regularly for 18 months to discuss approaches to current and future assessment, the AAB made the following recommendations to the Provost (March 2012) regarding the need to advance UMaine's work on campus-wide assessment:

1. *A presidential-level mandate for meaningful and sustainable programmatic assessment is necessary if a true culture of assessment is to be established at UMaine: one where instruction is tied to clearly articulated outcomes, assessments are explicitly aligned with those outcomes, and results are reviewed and acted on with the goal of improving student learning . . . UMaine cannot move forward on the assessment front in the absence of a serious campus-wide expectation (and attendant structural support) from senior administration.*

2. *Effective outcomes-based assessment is a critical driver of UMaine's future. In addition to a pragmatic need to fulfill our NEASC obligations, we have an opportunity to provide the people of Maine with evidence of the quality and efficacy of the education experiences we deliver. Most importantly, we are motivated by the belief that strengthening student success through assessment is simply the right thing to do.*

The AAB further suggested that UMaine join the Presidents' Alliance, an initiative of the New Leadership Alliance for Student Learning and Accountability supporting voluntary, cooperative efforts to move colleges and universities toward gathering, reporting on, and using evidence to improve student learning (http://www.newleadershipalliance.org/). The AAB believes this move would align UMaine with other institutions pursuing evidence-based improvement of student learning and public accountability.

The Provost brought the AAB's recommendations forward to the President and the concepts ("Effective outcomes-based assessment")are reflected in the President's call of "a proposal by the end of Spring 2013 to formalize assessment of student learning outcomes for university –wide academic programs" (Blue Sky Project, p. 46).

E. *Indirect evidence: NSSE data and other sources*

The National Survey of Student Engagement (NSSE) is seen as an important though imperfect measure of student learning capturing key dimensions of the student experience. UMaine administered the survey in 2007 and 2011. UMaine's means on the NSSE "benchmark" scales-- Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Education Experiences, and Supportive Campus Environment-- are similar to or slightly lower than those of other New England public universities or universities in the same Carnegie classification. Benchmark means for first-year UMaine students have improved across the board since 2007, but by contrast, there no was appreciable change in one direction or the other among UMaine seniors.

Insofar as a scaled mean necessarily masks item-by-item results, it is necessary to examine the frequencies for individual items as well. For example:

- 77% of freshmen and 64% of seniors believe UMaine quite a bit or very much provides the support they need to succeed academically;
- 75% of freshmen and 62% of seniors find the quality of academic advising the receive to be good or excellent;
- 85% of freshmen and 74% of seniors concluded that they probably or definitely would go to UMaine had they the decision to make again.

While these percentages are encouraging, room for improvement remains, and the generally lower percentages for seniors compared with first-years is of concern. The next administration of NSSE should prove illuminating as UMaine strives to enhance student success through effective assessment.

The university also derives indirect evidence from graduation and alumni surveys, placement rates, departmental exit surveys, and anecdotal information from alumni updates and other publications.

Actions taken to improve student learning include a new centralized advising pilot program beginning fall 2012 in the College of Liberal Arts and Sciences. We expect improvement in academic preparedness, post-graduation job placement, and overall student satisfaction with the UMaine experience. If the outcomes are demonstratively positive as expected, it will serve as a model for campus-wide implementation in future terms.

Another initiative slated for the fall 2013 semester is the construction of a large-scale "Active Learning Classroom," following the lead of the North Carolina State "Scale-Up" project. Active Learning Classrooms (ALC) contrast with the traditionally passive theater-style lecture by engaging students via inquiry-based learning in small groups (teams) that remain together throughout the semester. Groups are seated at round tables equipped with several computers each, and wired to enable display sharing within the group or to the entire class of ~80. Faculty and TAs interact with each group individually during a class session. The groups engage in activities that one proponent terms: tangibles, ponderables, labs, and group problem-solving. Lecture material can be delivered either during the class in response to the immediate work, or via podcast prior to the class. Team-work helps students engage in problem-solving and critical thinking as well as reflect on issues of diversity. Studies have shown that attendance and learning outcomes are dramatically improved in the ALC setting not only for science and technology, but for the humanities as well.

II. General Education

The Faculty Senate is charged with overseeing General Education. A standing committee established following the last accreditation cycle reviews and updates a set of outcomes in place since the establishment of General Education in the mid-1990s. The General Education Committee maintains a web presence on the Faculty Senate site. The Undergraduate Program and Curriculum Committee (UPCC) reviews each new or revised course requesting General Education status for indications of how course content, goals, and objectives align with the General Education outcomes for each category sought.

Development of discrete assessment for each General Education category has been challenging given the varied nature of the categories and the many ways to satisfy them. SYNAPSE assesses achievement in biological sciences and TK-20 does the same for education. Nursing responds to benchmarks tailored to fulfill certain categories. Extensive work has gone into embedded assessments of various kinds for Writing-Intensive courses (in English Dept. courses and in the Writing Intensive category in general). Liberal Arts and Sciences supported an in-depth review of the state of writing on campus (in 2010-11) with General Education as a focus. The Artistic and Creative Expression category uses some modes of artistic performance or appreciation as ways to measure successful completion of the category. Capstone courses are assessed as appropriate to the discipline.

As of April 2012, the Faculty Senate had passed resolutions to adopt updated student learning outcomes in the following General Education categories**:**

- Quantitative Literacy
- Ethics
- Science
- Capstone Experience
- Demonstrated Writing Competency
- Human Values and Social Contexts: Cultural Diversity or International Perspectives
- Human Values and Social Contexts: Population and Environment
- Human Values and Social Contexts: Artistic and Creative Expression
- Human Values and Social Contexts: Social Contexts and Institutions
- Human Values and Social Contexts: Western Cultural Tradition

These resolutions bring the total number of revised categories to **10** since **2010.** The approved Student Learning Outcomes for all General Education categories are listed in Appendix C.

Defining the Student Learning Outcomes (SLOs) for General Education represents the first step in the process of General Education reform. Next steps include defining *how* these new SLOs are best delivered. We are prepared to take this next step beginning in the fall 2012 semester with a group of faculty and administrators reviewing successful models and best practices from around the country. By the summer of 2013 we will have determined:

1. a modality for the delivery of our already established General Education Student Learning Outcomes;
2. a vendor, e.g. TK20, for facilitating campus-wide assessment;
3. what infrastructure will have to be installed to maintain an effective system of outcomes-based assessment.

Regardless of modality of delivery of the General Education Student Learning Outcomes, these revised SLOs will go into effect beginning in the fall 2014 semester.

III. Four steps toward a system of assessment

UMaine has not yet determined whether an internal (home-grown) or external, vendor-based system will best serve our comprehensive assessment needs. Regardless of the means used to achieve comprehensive assessment, however, our steps to fulfilling that goal are as follows:

1. Each academic program must identify key assessments that are demonstrably aligned with the program's learning outcomes. These could be a combination of embedded assessments, common assessment across courses (i.e. programmatic outcomes), self-standing assessments, or others. *We have realized this step*.
2. Having accomplished #1, each program will establish a strategy for reporting student achievement at the unit level (e.g. percentage of students passing, or demonstrating efficiency on a capstone assessment; percentage of students passing an exit or certification exam; etc.).
3. Having accomplished #2, each program will establish a process for regularly reviewing achievement results for program improvement.
4. Having accomplished #3, each program will demonstrate how it has acted on achievement results for program improvement.

Long-term General Education assessment should follow a process paralleling the one outlined above and ultimately, all of our assessments will be mapped to the goals of our strategic plan and institutional mission statement.

Appendix B contains a list of Assessment activity at UMaine, Spring 2009 to Spring 2012.

Area of Focus #3: Implementing Plans to Address Deferred Maintenance and Improve Physical Facilities

This section of the document updates the New England Association of Schools & Colleges (NEASC) accreditation commission on the implementation of the institution's plans addressing deferred maintenance and improvement of its physical facilities in keeping with NEASC Standard 8.

"The institution undertakes physical resource planning linked to academic and student services, support functions, and financial planning. It determines the adequacy of existing physical and technological resources and identifies and plans the specified resolution of deferred maintenance needs (8.4)."

Relevant Background

As the 2009 NEASC Final Report Standard Eight section stated, the University of Maine consists of a primary campus in Orono as well as six farms, two research facilities, and leased facilities throughout the state, encompassing 345 buildings totaling 4.7 million gross square feet (with 93% of space contained on the main campus). The Report also indicated that "while the University has seen recent improvements to its physical plant, it continues to carry a significant amount of deferred maintenance and many facilities remain functionally deficient…. A review of major capital projects funding sources reveals that the University has significantly relied on periodic one-time infusions, generally through the sale of bonds and state funding, to address capital needs."

Current Situation

Deferred maintenance and recapitalization backlogs continue to present opportunities to improve the physical facility of the institution. Given continued constricted funding from the State and the recent UMS Board of Trustees' mandated limit on tuition increases, the campus budgets still do not have the capacity to fully fund depreciation. The institution has, however, annually increased its allocation to fund depreciation in keeping with the target set by the University of Maine System. The campus, thus, has been able to apply modest increases to the annual maintenance budget and has addressed many of the items reflected in the 2009 NEASC report as requiring attention.

The following table shows the allocations for deferred maintenance and funded depreciation for Fiscal Years '08-'12, and the cumulative increase.

	FY08	FY09	FY10	FY11	FY12	FY08-FY12 Increase
Deferred Maintenance	1,891,880	2,091,880	2,081,880	2,131,880	2,131,880	240,000
Funded Depreciation	882,685	1,132,685	1,232,685	1,586,804	2,350,217	1,467,532
Totals:	2,774,565	3,224,565	3,314,565	3,718,684	4,482,097	1,707,532

The afore-mentioned fiscal scenario has subsequently increased the rate of growth in the deferred maintenance and recapitalization of the asset portfolio and, therefore, results in a new goal of $4.41/gsf to stabilize the backlogs at the current levels. The institution's spending on annual stewardship has temporarily dropped to $0.36/gsf from the $0.60 reported in the 2009 NEASC report. This equates to 8.3% of the new goal, according to annual benchmarking provided by Sightlines, LLC, in its FY11 Facilities Measurement, Benchmarking, and Analysis Presentation to the University of Maine.

The Department of Facilities Management has recently initiated a facilities cost modeling project utilizing a national online cost database (CostLab, Whitestone Research, LLC) in an attempt to model annual maintenance and recapitalization backlogs as a starting point for a more targeted asset investment strategy.

As well, the University of Maine System has initiated a project to implement an Integrated Workplace Management Solution (IWMS) that will consolidate four disparate software systems that currently provide facilities information regarding space, utilities, work management, and capital planning. This project will have a significant impact on the University of Maine, and has the potential to gain $0.5M to $1.0M of resource, through operational efficiencies, which will be applied to the deferred maintenance and recapitalization challenge.

Since 2009, the University of Maine has received several awards for its sustainability efforts and capital construction projects, to include, in 2011, the Climate Leadership Award from Second Nature and the Green Honor Roll from Princeton Review and, in 2012, for the second time, the Green Honor Roll from Princeton Review and the LEED Gold Certification for the AEWC Advanced Structures and Composites Center Test Stand. LEED certification has been applied for in at least one of the University's future projects, the new Planetarium, which is currently scheduled to open its doors in Fall 2013. Projects which have recently been completed, are currently under construction, or are projected for construction are listed in Appendix E.

Efforts Made to Improve Physical Facility

Infrastructure:

- Completed development of Five-Year IT Strategic Plan, a year-and-a-half effort. The resulting document has input and buy-in from the entire campus community.
- Developed a plan and funding model to install wireless in all residence halls by the fall of 2013. Three halls will be done by fall 2012, five more during the academic year, and the balance in the summer of 2013.
- Introduced UMaine to the Gig.U initiative, one of the first gigabit community networks in the country, and became a founding member.
- Upgraded, with NSF Track 2, data wiring in six buildings, making them capable of handling the highest data speeds.
- Began the deployment of Voice over IP phones to replace the aging PBX phone switch the campus has used for the last 15 years. 500 phones are to be deployed in the summer of 2012. The plan has been expanded to include the Hutchinson Center and the Darling Center, both of which will be upgraded in Summer 2012.

Facilities:

- Limited the construction of small buildings to increase economies of scale.
- Completed the Historic Preservation Master Plan, referred to in the 2009 NEASC Final Report, and developed Design Guidelines for buildings within the National Register Historic District.
- Completed major renovations, upgrades, and additions to campus buildings, to include several research, athletics, and educational buildings, as well as Fogler Library. See Appendices A and B for listing.
- Completed $11 million major renovation to the Collins Center for the Arts "front-of-house", adding amenities for the comfort of patrons, including Miller's Cafe, ADA restroom facilities, defined space for the Hudson Museum, improvements in sound and lighting technology, and improved beauty and functionality.
- Established graduate student residence with space for the Graduate School administration and Graduate Student Government organization in Stodder Hall.
- Completed renovation in Balentine Hall for the Honors College administration and student residence.
- Completed residence hall asbestos remediation and residence hall sprinkler system installation project.
- Completed major consolidation of dining facilities and operations, renovating major facilities and minor locations, resulting in $2M/year savings.
- Moved IT's computer retail operation, the Computer Connection, into the Bookstore, utilizing excess space in the Bookstore and improving traffic for both operations.
- Converted University Park to natural gas heat.

Plans for the Future

The University of Maine intends to prioritize the annual maintenance and recapitalization backlogs as resources allow. As stated previously, the new software systems will help

facilitate this goal. Capital construction and infrastructure projects will continue as scheduled. Additional projects will be undertaken as needed and afforded.

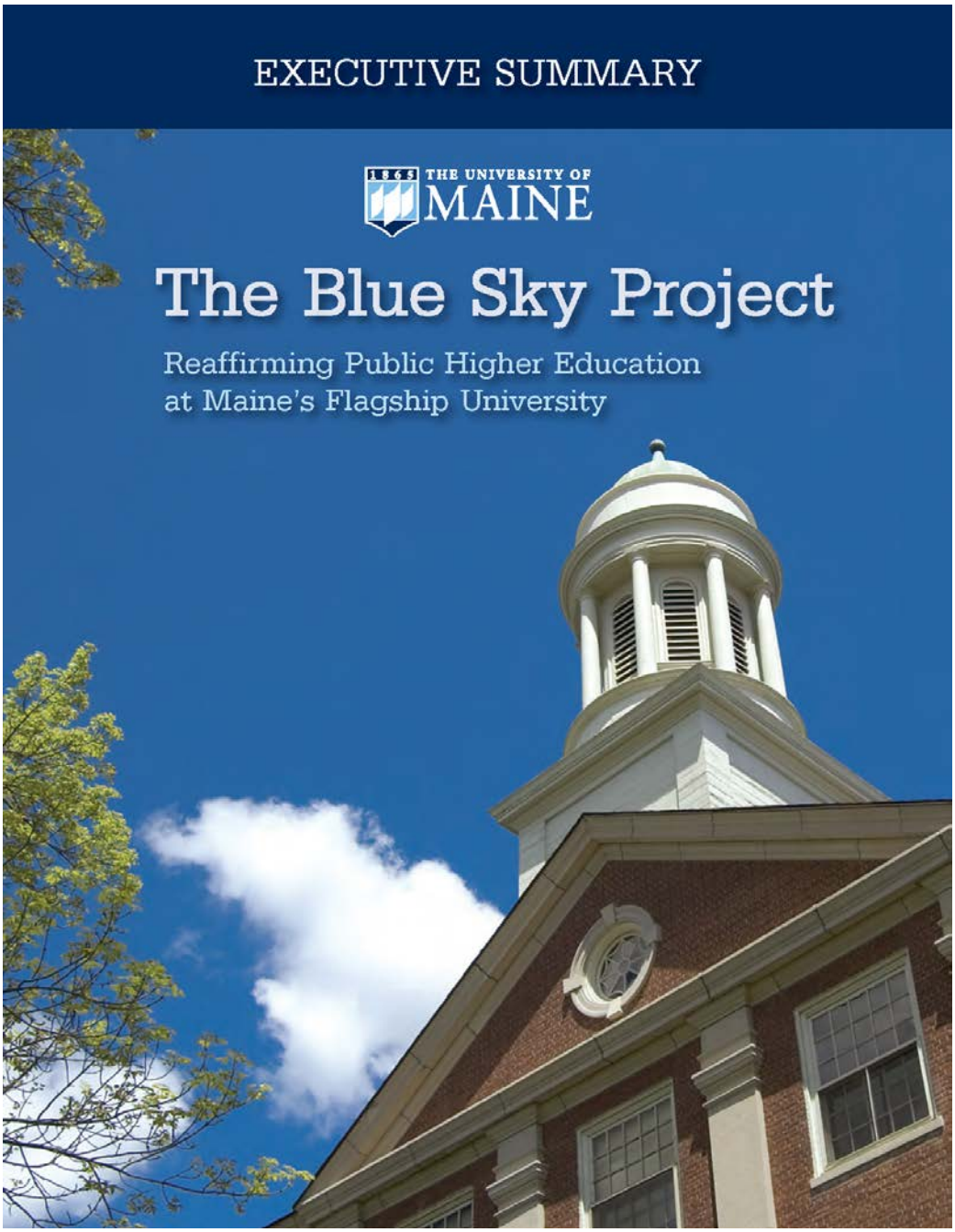
Infrastructure:

- Complete installation of wireless in all residence halls by Fall '13.
- Complete deployment of VoIP phones.
- Partnering with GWI, install one of the first gigabit community networks in the country.

Facilities:

- Establish a 20-year Housing Master Plan.
- Complete new Use-of-Space Study, which will guide the re-allocation and future allocation of space on campus.
- Continue aggressive furniture and facility upgrades (Paint, Polish and Plant) to resident halls.
- Demolish up to ten outdated three-bedroom apartment buildings at UPark.
- Install UPark sprinkler system and renovate 26 dwelling units.
- Construct 50-space parking lot adjacent to Caribou Hall.
- Plan and identify funding for Coburn Hall renovations.
- Paint exterior of Fogler Library, DP Corbett Business Building, and Alumni, Merrill, Stevens, and Chadbourn Halls.
- Complete on-time and on-budget the projects listed as In Progress in Appendix E.

Appendix A - Blue Sky Plan Executive Summary


EXECUTIVE SUMMARY
1865 THE UNIVERSITY OF MAINE
The Blue Sky Project
Reaffirming Public Higher Education
at Maine's Flagship University

UMaine for a Renewed Maine

The Blue Sky Project: Reaffirming Public Higher Education at Maine's Flagship University

The Blue Sky Vision

The University of Maine aspires to be the most distinctively student-centered and community-engaged of the American Research Universities.*

Building on our distinctive foundation of innovative teaching and research, we are committed to a dynamic culture that integrates world-class teaching, inquiry and outreach to build a prosperous future for Maine's citizens. We will invest in signature programs of excellence to foster superb academic and research programs, build strong communities on our campus and with our external partners, grow healthy economies and fulfill our mission of responsible public leadership. We will realize our vision through bold, interdisciplinary risk-taking, coupled with pragmatic problem solving.

The Blue Sky Project, an inclusive and consensus-driven strategic planning process, sets forth the University of Maine's guiding principles and key areas of distinction, shapes a bold yet pragmatic framework for innovative and entrepreneurial growth, and charts a responsible course for fiscal sustainability through 2017.

Chapter 1 provides a reflective look at the current strengths and distinctives of the University of Maine within a context of pressing challenges. Chapter 2 introduces five "Pathways to a New UMaine" that offer an inclusive and ambitious prescription for our 21st-century university. Chapter 3 provides the Blueprint: Initiation Strategies, metrics and timelines that provide the necessary accountability and directions that will ensure timely achievement of our vision.

The Plan concludes with a call to engagement, an overview of our planning process and a bibliography of background literature.

The University of Maine is listed in **The Top American Research Universities by The Center for Measuring University Performance at Arizona State University. Such institutions are compared by their rank on nine different indicators: Total Research, Federal Research, Endowment Assets, Annual Giving, National Academy Members, Faculty Awards, Doctorates Granted, Postdoctoral Appointees and Undergraduate Achievement (SAT/ACT range, National Merit Scholars).*

We Are the University of Maine — A Catalyst for Contemporary Change in Maine

Our state faces unprecedented challenges. As presented in *Making Maine Work,* Maine's primary economic challenges include per capita income, an aging population, and the costs of remaining competitive in the areas of health insurance, energy taxes, regulations and transportation. Maine must also address the challenge to increase productivity through educated and trained workers. These acute economic issues are coupled to more widespread concerns (such as climate change and the competitive impact of globalization) that require the state's attention.

Due to the recent history of declining revenues in Maine, state appropriations to the University of Maine have also declined. This trend — at all institutions of higher education in Maine — has significantly contributed to the rising costs of higher education for Maine's citizens.

Maine must address achieving fiscal stability through new economic development and governmental efficiencies, maintaining environmental balance by preserving yet developing our unparalleled natural resources, and providing long-term opportunities for the health, welfare and prosperity of Maine citizens. In turn, the University of Maine must ensure campus fiscal sustainability through renewed entrepreneurship and philanthropy, and through its teaching, research and outreach, creatively contribute to the renewal of the state.

In order to achieve this, the University of Maine needs a better model of fiscal sustainability, better alignment of academic programs, research and service with Maine's economic development, workforce and human resource needs, better student recruitment and retention programs, better campus incentives and enrichment programs for staff and faculty, better communication strategies, better support for the arts and humanities, better support for professional development and support of graduate students, and a better commitment to campus stewardship and beautification. **The Blue Sky Plan is designed to focus attention on, and develop a strategy to address, these improvements.**

Guiding Principles and Areas of Distinction

As the flagship university of the University of Maine System's (UMS) seven campuses, the University of Maine represents nearly 50% of the UMS fiscal resources. In this role, UMaine takes seriously its responsibility to lead by example with the clear charge to align our resources with the state's needs:

- Educate more people and make sure they have the skills necessary to meet the needs of Maine's businesses.
- Drive innovation to support entrepreneurship, serve the public and support business through regional economic development efforts that help them thrive in the global economy.
- Expand the role of community and cultural centers to enhance the quality of life in Maine, and promote an engaged and insightful citizenry.

Moving forward means building on past successes and investing in our primary areas of distinction:

The Environment: Understanding, Managing and Preserving Natural Resources

Energy: Understanding and Producing Diverse Sources of Energy

Community and Culture: Understanding and Developing Quality of Place and People

Educating Leaders for Today and Tomorrow

For more information about how each of these areas is critical to UMaine's current and future success, please consult the full Blue Sky Plan.


MAINE
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Five Blue Sky Pathways to a New UMaine

Each Blue Sky Pathway will be fueled by responsible resource allocation, coupled with the vision and commitment to excellence by UMaine's senior leadership, faculty, staff, students and community partners. An array of targeted Initiation Strategies will guide our work, and an adaptive, evolving set of metrics will track our progress initially throughout 2012–2013, until 2017.

1. Serving Our State: Catalyzing Maine's Revitalization

The University of Maine will align its innovation, entrepreneurship and community outreach with the priority economic and cultural needs of Maine. Our interconnected research, teaching and service mission will be a primary engine that drives Maine's future. Our research enterprise will increase UMaine's stature and footprint, and expand "use-inspired research." We will focus on targeted growth in arenas promising returns on investment that will ultimately benefit all of our constituencies.

Following this Pathway will ensure that UMaine is a more responsive, adaptive and powerful partner, and will enable critical growth in areas, such as business development, sustainable energy development and entrepreneurship, Maine's STEM needs, regional research and economic development, P–20 education, health care and social services. In addition, it will promote the state's cultural heritage while affirming the centrality of a liberal arts education at the state's flagship university in providing critical thinking and communication skills to all professions, as well as enhancing quality of life for Maine's citizens.

2. Securing Our Future: Ensuring Financial Sustainability

We will take bold and innovative steps to efficiently strengthen our financial position through increasing operating revenues as an offset to operating expenditures. We will revise our organizational structure to effectively and efficiently support our academic and research agendas. This will require us to redesign and define the optimum business model of higher education for a 21st-century public research university that strategically grows new operating

Five Blue Sky Pathways *continued*

revenues beyond operating expenditures to ensure fiscal sustainability. We will use data-driven decision making and bold leadership to reshape the size and quality of Maine's flagship campus enrollment and, therefore, strive to increase the university base budget to fund new campus initiatives, including strategic faculty hires, with clarity and confidence. We will sculpt the optimal balance of in-state, out-of-state and international students at the graduate and undergraduate levels to foster and sustain the most healthy and vibrant university for Maine. We will encourage colleges and other academic units to cooperatively pursue entrepreneurial avenues toward improving financial sustainability. We will enhance our research capacity and output as measured in the core areas of research expenditures, private foundation funding, intellectual property creation, and royalty income and industry-funded research. We will realign our Advancement partners to more strategically and effectively conduct friend-raising and fundraising to achieve new revenues ensuring UMaine's fiscal stability. We will continue to increase transparency and accountability through established benchmarks and metrics.

Following this Pathway will enable UMaine to fund the excellence consistent with our vision for engagement and consistent with the strategic directions of the University of Maine System. This will require committing to entrepreneurial approaches to institutional budgeting and decision making. This, in turn, will build the necessary foundation for future investments in key academic areas, including the hiring of new faculty necessary for maintaining excellent teaching, research and outreach activities at UMaine.

3. Embracing a Culture of Excellence: Promoting Spirit, Community and Collaboration

We will refresh and reintroduce the unique UMaine brand to our many constituencies on campus and externally across the state, region, nation and the world. Our communication and outreach efforts will be thoughtful, strategic and consistent, and we will recruit key constituencies to help us advance our mission and achieve our vision. We will plan with intent to grow a culture of continuous engagement among our campus citizens and community partners. Our teaching and research enterprise will increase its stature and footprint in expanding the boundaries of knowledge as measured by interdisciplinary collaborations, publications, public dialogue and disciplinary impact. We will continue to strategically and creatively hire world-class faculty who further these boundaries and provide the best possible education to future leaders. We will celebrate and materially reward criteria-based achievement among our faculty and staff by increasing resources for professional development, and creating a structured means for providing training and incentive opportunities. Our plan aims to reward excellence and energize our faculty and staff, who are the key to shaping UMaine's future and establishing a high-quality workplace.

Following this Pathway will result in a more engaged and interactive UMaine campus with our constituencies by creating an effective communication infrastructure to build community and streamline best practices. Also, appropriately rewarding hard-working faculty and staff and promoting morale will help us to recruit and retain the best and brightest employees to advance UMaine.

4. Transforming Lives: Strengthening the UMaine Undergraduate and Graduate Student Experience

We will promote student achievement and success through graduation, career preparation, job placement and cross-cultural enrichment. We will continue to ensure that our students are taught by appropriately qualified faculty and have a productive learning experience in the classroom. We will expand these and similar avenues of opportunity for our undergraduates, with a special emphasis on cutting-edge undergraduate research collaborations with our finest research faculty and graduate students. We will strengthen our signature Honors College, and we will improve the quality and range

Five Blue Sky Pathways *continued*

of student life and learning opportunities, including new resident life strategies. We will enhance the number and quality of Graduate Research Assistantships/Fellowships available for graduate students to be able to focus on world-class research experiences. The University of Maine will advance an integrative model of excellence for graduate education in the 21st century and will foster dynamic professional training and development activities through university-wide interdisciplinary research networks.

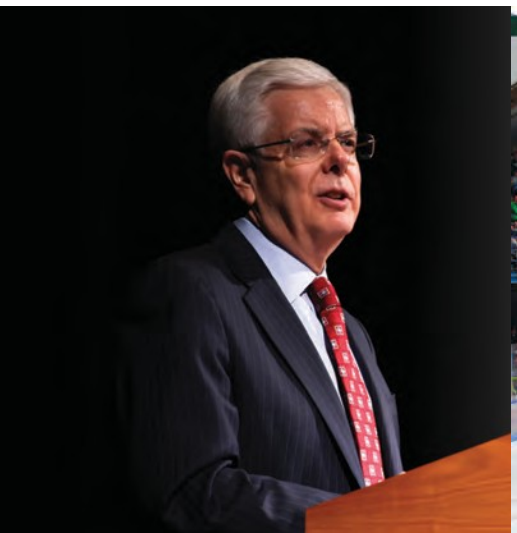
Following this Pathway will attract top students to UMaine, and provide them with stellar support and preparation for careers or further academic achievement, as well as reinforce UMaine's academic excellence, expand opportunities for professional success and improve quality of life during their time of study at UMaine.

5. Restoring the Dream: Renewing Pride and Stewardship of Place

We will restore the dream of the land-grant mission by revitalizing the brick-and-mortar and technology infrastructure critical to our flagship campus. We will ensure funding toward ongoing campus improvement and beautification as we renew pride and renew a culture of stewardship at UMaine. Consistent with the goals of our strategic planning, we will review, revise and expand the campus master plan to align the optimum use of historic buildings with the need for new construction in support of the academic, research and outreach mission, including close monitoring of ongoing capital construction projects to ensure on-time and on-budget progress. We will incorporate long-term planning for our off-campus locations. We will build state-of-the-art technology infrastructure for both on-campus and off-campus use, and work to ensure sound site and utility infrastructure.

Following this Pathway will signal that we value our work and value our institution with its 368 campus buildings and structures on 8,313 acres at close to $1 billion in infrastructure and real estate, yet affirm our responsibility to maintaining and preserving our physical environment as a place of learning and discovery.

For more information about the Blue Sky Pathways and Initiation Strategies, please consult the full Blue Sky Plan.




MAINE

Summary of the Five Strategic Pathways for Reaffirming Public Higher Education at Maine's Flagship University

1. **Maine's Renewal** - Ensure UMaine teaching, research, outreach, workforce and economic development program excellence, with close alignment to Maine's priority needs.

2. **Money and Management** - Optimize operating efficiencies and control expenditures within a financially sustainable business model, and seek new and entrepreneurial revenue sources.

3. **Morale and Marketing** - Invest in faculty and staff professional development, refresh the UMaine brand and improve communication among all constituencies.

4. **Mentoring and Modeling** - Promote undergraduate and graduate opportunities for student success, including value-added residential life, research fellowships, internships, effective advising and learning environments.

5. **Master Plan and Maintenance** - Restore and create UMaine's physical plant and technology infrastructure to ensure a vibrant place of learning and discovery.

I am not here to defend the status quo. I am here to defend this University's importance to the State of Maine and to re-emphasize the public good inherent in the mission of the public research university. I ask all to join me during our 150th anniversary in recommitting to the inherent, mutually beneficial partnership between the citizens of Maine and their University.

President Paul W. Ferguson, Inaugural Address, April 19, 2012

Blue Skies Ahead: A Call to Engagement

We are the University of Maine. We are the University *for* Maine. And we see Blue Skies Ahead. We have done some big thinking and some bold planning. Our Blue Sky Vision calls us to aspire to be a standard-setting American Research University through creatively ***engaging*** our students and communities with innovation. To that end, for the Blue Sky Plan to be successfully implemented, it is obvious that over the next several years, the specific implementation strategies will continue to evolve, based upon our early strategic successes — and the success of our ***engagement*** with the UMaine community.

President Ferguson, the President's Cabinet and the Blue Sky Implementation Leadership Team (a transition group from the Strategic Planning Leadership Team to be formed in September 2012) will work closely with deans, directors, department chairs, alumni and donors, legislators, faculty, staff, community/business partners and students throughout the UMaine community, state, region and nation to apply greater detail to the Blue Sky Plan by reviewing and revising our fiscal model and organizational structures, investing or reinvesting in our key areas of distinction, meeting new and emerging needs, growing a UMaine culture of excellence, communicating who we are and what we do to our many constituencies and friends, and ensuring accountability to achieve our desired outcomes.

The plan will unfold with strategic leadership, constant innovation and responsible public stewardship driving everything we do. We will regularly assess where we are and where we still need to go, and we will realign, enhance or modify elements of the Plan as needed. Our Blue Sky Implementation Project site, to be accessible through the UMaine homepage and the Office of the President's page, will feature an Annual Blue Sky Implementation Report based on our successful growth and goals we have reached or surpassed.

For more information about the Blue Sky Planning process and the Leadership Planning Team, please consult the full Blue Sky Plan.

Strategic Planning Leadership Team

Paul Ferguson, *President (Chair)*
Julie Hopwood, *Senior Advisor to the President (Co-Chair)*
Linda Silka, *Director, Margaret Chase Smith Policy Center (Project Facilitator)*

Kristen Andresen, *University Relations, Alumni Association Board of Directors*
Robin Arnold, *Classified Employees Advisory Council*
John Rebar, *Director, University of Maine Cooperative Extension*
Abigail Garthwait, *Associate Professor of Education Instructional Technology (EDHD)*
Ben Goodman, *Undergraduate Student, BOT Student Representative*
John Simpson, *University of Maine Foundation Board*
Dana Humphrey, *Dean, College of Engineering*
Brianna Hughes, *Doctoral Student, BOT Graduate Student Representative*
Dan Sturrup, *Interim Director, Auxiliary Services*
George Jacobson, *Professor Emeritus, Former Director of the Climate Change Institute*
Scott Johnson, *Professor and Chair of Earth Sciences*
Robert Rice, *Professor of Wood Science, BOT Faculty Representative*
Nathan Kinney, *Senior Financial Economics Major, President, Senior Skulls; Vice President for Finance, Student Government*
Jan Kristo, *Professor, Associate Dean (EDHD), Distinguished Maine Professor*
Jake Ward, *Assistant Vice President for Research, Economic Development and Governmental Relations*
Laurie Lachance, *President, Maine Development Foundation, UMaine Board of Visitors*
Laura Lindenfeld, *Associate Professor of Communication and Journalism* **Judy Josiah-Martin,** *Director, Multicultural Programs, Division of Student Affairs* **Mike Swartz,** *Professional Employees Advisory Council*
Jeffrey St. John, *Director, Center for Excellence in Teaching and Assessment*
Kenda Scheele, *Assistant Vice President for Student Affairs* **Robert Strong,** *Professor of Finance, NCAA Faculty Representative*
Howard Segal, *Professor of History*
James Page, *Former UMaine Board of Visitors Member (resigned upon appointment as UMS Chancellor)*

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Appendix B: Assessment activity at UMaine, Spring 2009 to Spring 2012

- Collection of departmental student learning outcomes begins (Spring 2009).
- Institutional review of student learning outcomes begins (Fall 2009).
- The Center for Teaching Excellence is renamed the Center for Excellence in Teaching and Assessment (CETA) and is tasked with supporting course- and program-level assessment (Spring 2010).
- Institutional Studies and CETA provide feedback to 39 departments about the clarity and coherence of their learning outcomes (or "goals") (May 2010). Outcomes are posted to department and/or college websites (Summer and Fall 2010).
- Professor Tina Passman is tasked with the systematic review of General Education (May 2010).
- A UMaine team comprising faculty and administrators participates in AAC&U's General Education Institute and develops an Action Plan (June-July 2010).
- CETA facilitates a General Education "category workshop" (on the Writing Intensive category) for faculty to commence a discussion of how best to revise learning outcomes and assessment practices (August 2010).
- The CETA Assessment Advisory Board (AAB) begins to meet to discuss challenges facing UMaine and to develop recommendations for future action (Fall 2010).
- Tina Passman develops and begins to populate a General Education website (Fall 2010).
- The General Education Committee puts forward revised student learning outcomes for Quantitative Literacy. Outcomes are approved by the Faculty Senate (November 2010).
- Institutional Studies and CETA review assessment-related data from 2010 college annual reports (October 2010).
- College of Education and Human Development contracts with TK-20 to service data collection and assist in the creation of rubrics for NCATE-governed areas (Fall 2010).
- General Education Committee and CETA representatives attend NEASC's assessment conference (December 2010).
- Assessment Advisory Board issues formal recommendations to Provost Hunter and Associate Provost Marrs (September 2011) and meets with them to discuss potential next steps (March 2012).

- The General Education Committee met monthly to discuss assessment and revised General Education outcomes in the remaining categories (January 2011- April 2012).
  Faculty Senate approved remaining areas in spring 2012.
- CETA works with departments, programs, and grant teams to produce assessment outcomes, rubrics and protocols (2010-2012), including:
    - Canadian-American Center grant renewal (successful)
    - CLAS NEH Challenge grant for Maine Humanities Center
    - Dept. of Animal and Veterinary Sciences student learning outcomes
    - CLAS/General Education faculty training grant
    - Dept. of Philosophy course assessments
    - Innovations Engineering student learning outcomes

Appendix C: General Education Student Learning Outcomes

Quantitative Literacy

Preamble

Quantitative literacy is the ability to formulate, evaluate, and communicate conclusions and inferences from quantitative information. Students will develop their quantitative literacy during their undergraduate experience through courses targeted at quantitative literacy and through frequent exposure to quantitative problems and analyses both inside and outside their major.

Student Learning Outcomes

Upon completion of general education study in quantitative literacy, students will understand the role that mathematics and quantitative thinking plays in solving and communicating information about real world problems and relationships. Students will be able to:

1. Translate problems from everyday spoken and written language to appropriate quantitative questions.
2. Interpret quantitative information from formulas, graphs, tables, schematics, simulations, and visualizations, and draw inferences from that information.
3. Solve problems using arithmetical, algebraic, geometrical, statistical, or computational methods.
4. Analyze answers to quantitative problems in order to determine reasonableness. Suggest alternative approaches if necessary.
5. Represent quantitative information symbolically, visually, and numerically.
6. Present quantitative results in context using everyday spoken and written language as well as using formulas, graphs, tables, schematics, simulations, and visualizations.

Instructors of courses offering General Education credit in the area of Quantitative Literacy will indicate how the Student Learning Outcomes will be achieved on their syllabi. Assessment practices are, for the most part, embedded within the courses awarding general education credit and are appropriate to the content and goals of each course and program.

Ethics

Preamble

Students are required to take a course or a series of courses placing substantial emphasis on discussion of ethical issues. The ethics requirement can be satisfied by

1. a stand-alone course in which ethics constitutes a substantial focus of the course, or
2. by a well defined series of courses required in a particular curriculum, wherein the treatment of ethics in any one course may be somewhat less, but which taken together sum to a substantial emphasis on ethics. Courses that satisfy the ethics requirement must have a theoretical component and have one or more of the following attributes:

    a) they teach methods of ethical analysis
    b) they deal intensively with ethical issues associated with a particular discipline or profession;
    c) they engage the student in the study of ethical questions arising through the interpretation of literature or history, or social scientific analysis designed to include ethical evaluation. In order for a course to be approved under this criterion, the treatment of ethics must be substantial rather than merely incidental.

Student Learning Outcomes

Students completing the general education area of Ethics will be able to do one or more of the following:

1. Understand and describe main issues and concepts relevant to ethical theory.
2. Demonstrate their ability to work effectively with ethical issues and theories through their analysis and evaluation of the theoretical, literary, historical or artistic texts through which fundamental ethical ideas and problems are presented.
3. Critically evaluate the ethical ideas they are studying and apply these ideas to situations of everyday life.

Science

Preamble

Students are required to complete two courses in the physical or biological - sciences. This may be accomplished in two ways:

1. By completing two courses with laboratories in the basic or applied sciences;
2. By completing one approved course in the applications of scientific knowledge, plus one course with a laboratory in the basic or applied sciences.

DEFINITIONS AND EXPLANATIONS

1. A laboratory course in the applied physical or biological sciences brings basic knowledge to bear on the solution of practical problems in engineering, medicine, agriculture, forestry, and other fields for which natural science forms the foundation. Normally applied science courses require one of the basic natural sciences (biology, physics, chemistry, geology) as a prerequisite, and carry at least 4 degree credits.
2. A course in the applications of scientific knowledge has the following attributes:
   a) it focuses on one or more basic or applied natural sciences
   b) it includes significant blending of presently accepted science with its application in common situations;
   c) it discusses both the applications and limitations of the relevant scientific methodology;
   d) it includes as a major component of the course the observation of natural phenomena coupled with the gathering of data and its quantitative analysis, and its interpretation in an expository format; its overall focus is on guiding students towards the scientific literacy necessary for modern life rather than on training future science professionals.

A science course, laboratory or applied, will have the following student outcomes embedded within the course. The outcomes are based on "The Nature of Science" as published in "Science for All Americans Online" at http://www.project2061.org/publications/sfaa/online/chap1.htm (sponsored by American Association for the Advancement of Science (AAAS)). Retrieved February 2012.

Student Learning Outcomes

Students completing the general education area of Science will be able to:

1. Explain what makes knowledge scientific, i.e., "…things and events in the universe occur in consistent patterns that are comprehensible through careful, systematic study." (AAAS)
2. Demonstrate the appreciation that scientific knowledge is subject to change as new observations and interpretations challenge current understanding.
3. Recognize that valid scientific information is durable, i.e., it is continually affirmed as new observations are made.

4. Perform scientific inquiry including aspects of the scientific method, such as observation, hypothesis, experiment, and evaluation. Note: Covered in laboratory science courses but not necessarily in applied science courses.

Capstone Experience

Preamble

Every program must include an approved capstone experience. The goal is to draw together the various threads of the undergraduate program that bear directly upon the academic major in an experience that typifies the work of professionals within the discipline. Normally, the Capstone would conclude at the end of the student's senior year. Students should consult closely with their academic advisor to explore the range of options available for meeting this requirement.

The capstone experience should have the following attributes:

1. the experience must be of significant depth and require innovation, creativity, reflection and synthesis of prior learning;
2. the experience must result in a thesis, report, presentation, or performance that demonstrates mastery of the subject matter
3. faculty/student interaction should be an integral part of the experience.
4. minimum student effort in the capstone should reflect the equivalent of three credits of work Interdisciplinary experiences and opportunities for group participation in the capstone experience should be encouraged.

Student Learning Outcomes

Students completing the general education area of Capstone Experience will be able to:

1. Synthesize knowledge, skills, and dispositions gained throughout the student's major concentration of study.
2. Demonstrate competence within the discipline through professional conduct and, as appropriate, critical reasoning, analytical ability, and creativity.
3. Demonstrate effective communication skills.

Demonstrated Writing Competency

Preamble

Students are required to write throughout their academic careers and must demonstrate competency both at the introductory level and within their majors. To fulfill this requirement, students must:

1. Complete ENG 101, College Composition with a grade of C or better, or earn transfer credit by challenging the course successfully through presentation of a portfolio of past work demonstrating mastery of course outcomes.
2. Complete at least two writing-intensive courses, at least one of which must be within the academic major.

Definitions and Explanations -

In a writing-intensive course:

1. students must have an opportunity to revise their writing in response to feedback from the instructor;
2. a substantial portion of the student's final grade must be based upon the quality of the written work, and
3. course enrollment should normally be limited to 25 students or less.

Student Learning Outcomes

Students completing the general education area of Demonstrated Writing Competency will be able to:

1. Critique and revise their writing.
2. Achieve the intended purpose in the writing task, with awareness of audience.
3. Identify and fully develop ideas to a specific thesis.
4. Organize ideas effectively.
5. Adhere to proper mechanics and style.
6. Achieve clarity of expression in language, argument, rhetorical form, and idea.

Human Values and Social Contexts: Cultural Diversity or International Perspectives

Preamble

A course included in the Cultural Diversity or International Perspectives category satisfies one or more of the following criteria: (a) it places primary emphasis on the experiences, perspectives, and cultural work of one or more groups who are not dominant within a particular culture; (b) it has a primary goal encouraging students to become aware of the diversity of American culture and to discover their roles within that diversity; or (c) it places primary emphasis on the relationships among or within different cultures in the past or present; (d) it introduces students to a culture other than their own through an intermediate or advanced course in the language of that culture.

Student Learning Outcomes

Students completing the Cultural Diversity or International Perspectives general education area of will be able to do at least one of the following:

1. Recognize the experiences, perspectives, and cultural values of one or more groups who live within a culture different than their own.
2. Describe the diversity of American culture and reflect on their personal roles within that diversity.
3. Identify and assess how different cultures have related to each other either in the past or the present.
4. Achieve intermediate or advanced mastery of a language other than English.

General Education Student Learning Outcomes Human Values and Social Contexts: Population and Environment

Preamble

Courses included in the Population and Environment sub-category help students to understand how humankind interacts with our finite physical and biological environment. This understanding can be fostered in different ways. Some courses may emphasize technical, scientific problems and solutions. Others may focus on institutional, historical, and political dimensions, and others may focus on the cultural, ethical, and philosophical issues underlying current environmental problems. Courses fulfilling this requirement should address at least one of the following:

1. the role of both local and global environmental change on the quality of human life;
2. the pervasive role of human population growth on environmental quality and the quality of life, both in industrial and developing countries;
3. the influence of historical, cultural, religious, economic, educational, and political factors on population growth and environmental quality;
4. the ethical and philosophical assumptions underlying environmental policies and thinking about nature and the place of humans in nature;
5. possible sustainable solutions to the population/environment problems.

Student Learning Outcomes

Students completing the general education area of Population and Environment will be able to do at least one of the following:

1. Recognize and understand the role of both local and global environmental change on the quality of human life,

2. Describe the influence of diverse factors, such as philosophical, cultural, religious, economic, educational, and political, on population growth and environmental quality,
3. Understand the concepts and principles necessary to evaluate contemporary issues of population growth, natural resource conservation, and environmental protection,
4. Interpret diverse types of information about environmental issues, to develop their own perspectives on these issues, and to communicate these perspectives effectively,
5. Understand and describe technical and/or scientific approaches for addressing problems that arise in the relationship between human population and the environment.

Human Values and Social Contexts: Artistic and Creative Expression

Preamble

Courses included in the Artistic and Creative Expression category engage the student in creative thinking and processes. A primary objective is to develop skills and intellectual tools required to make artistic and creative decisions, and to participate in, evaluate, or appreciate artistic and creative forms of expression.

Student Learning Outcomes

Students completing the general education area of Artistic and Creative Expression will be able to:

1. Participate in, identify or evaluate artistic and creative forms of expression.
2. Develop skills and/or intellectual tools central to the artistic and creative process or its critique.

Human Values and Social Contexts: Social Contexts and Institutions

Preamble

Courses included in the Social Contexts and Institutions category focus upon the ways in which social contexts shape and limit human institutions (defined broadly to include customs and relationships as well as organizations). The specific focus may be upon ways in which social contacts and institutions interact with human values, the role of institutions in expressing cultural values, or the social and ethical dimensions attendant upon particular academic disciplines.

Student Learning Outcomes

Students completing the general education area of Social Context and Institutions will be able to:

1. Identify, describe and analyze social contexts and human institutions
2. Recognize and critically evaluate the interaction between social contexts and human institutions

Human Values and Social Contexts: Western Cultural Tradition

Preamble

The Western Cultural Tradition involves the historical and/or philosophical examination of the basis of Western culture. Subject areas may include, but are not limited to, artistic, economic, education, historical, legal, linguistic, literary, performative, philosophical, political, rhetorical, scientific, and social dimensions of the Western cultural tradition and its impact.

Student Learning Outcomes

Students completing the General education area of the Western Cultural Trandition will be able to:

1. Examine the sources, transmission, development and outcomes among ideas, institution, artifacts, and values within the traditions of the West.
2. Recognize and explore the complexity and variety among ideas, traditions, institutions, archaeological and historical texts and artifacts and values that inform the cultural traditions of the West.
3. Analyze and think critically about how societies are or have been defined by such cultural traditions.

Appendix D: 2009 Construction Projects Update

Projects included in the 2009 NEASC Self-Study Appendix F.8.a are listed below according to current status.

Completed Prior to Self-Study

- Advanced Manufacturing Center
- Franklin Center for Cooperative Aquaculture Research (CCAR) Aquaculture Building
- Foster Student Innovation Center (now the Foster Center for Student Innovation)
- Patch Hall
- Student Recreation and Fitness Center
- Engineering and Science Research Building
- Hitchner Hall Addition
- Aubert Hall Phases I and II
- Balentine Hall Renovation Phases I, II, and III
- Lord Hall Renovation
- Oak Hall Renovation
- Stevens Hall Upgrades
- Shawn Walsh Hockey Center / Alfond Arena Addition
- Fogler Library Terrace
- Colvin Hall
- Stodder Hall
- Hutchinson Center Addition
- Maine Center for the Arts (now named the Collins Center for the Arts) Front of House
- Coburn Hall
- Athletic Field Turf
- CCAR Upgrades (Seawater Pump House & Infrastructure)

Completed Since Self-Study

- Hilltop and Wells Commons Renovations
- AEWC Expansion and Equipment
- Residence Hall Sprinkler Project
- Fogler Library HVAC Upgrades
- AEWC Building Addition
- FBRI Technology Center in Old Town

Currently In Progress

- Collins Center for the Arts Back of House Renovation
- Classroom Upgrades

Discontinued

- Alumni Hall Renovation (to house Art Department)

Appendix E: 2012 Construction Projects Update

Achievements

- 2011 Climate Leadership Award (Second Nature)
- 2011 Princeton Review "Green Honor Roll"
- 2012 Princeton Review "Green Honor Roll"
- 2012 LEED Gold Certification AEWC Test Stand

Completed

- Alfond Arena renovation and renewal (installed dehumidification and sound systems, replaced 34-year old ice making system, chiller and original mechanical ventilation equipment, and renovated seating);
- Littlefield Garden renovations (academic improvements and ADA accessibility);
- FBRI Technology Center addition / renovation to Jenness Hall;
- Hutchinson Center renovation (replace roof, upgrade HVAC systems, replace underground oil tank with aboveground tank);
- Bike Path rebuilds and construction of new extension;
- Witter Farm renovations / addition to office space;
- Wetland Restoration Mitigation; and
- Steam Plant Turbine, construction of natural gas turbine/generator.

In Progress

- Alfond Mezzanine, installation of flooring;
- Bennett Hall renovations, installation of new elevator and creation of new classroom from existing storage area;
- Stewart Commons renovation, to accommodate the New Media Innovation, Research and Development Center and Studio Art programs;
- Memorial Gym / Fieldhouse renovation, upgrading core infrastructure issues, such as ADA improvements, mechanical ventilation, hazardous material remediation, and renovating to optimize space usage;
- Nutting Hall renovation, upgrading the mechanical system and building envelope;
- President's House renewal / renovation;
- Neville Hall Data Center renewal;
- Planetarium / Observatory design;
- Paul Mitchell Batting Pavilion construction;
- Aquaculture Research Center addition design;
- Fire Escape upgrades to Hannibal Hamlin and Holmes halls;
- Heating Plant Boiler 8, replacing two existing 1946 water tube boilers w/ high efficiency, first-fire boilers using natural gas or #6 fuel oil;
- Compost Facility construction, to compost food waste from all UM Commons;

- Alfond Way construction, providing paved walkway from the Recreation Center to the Alfond Arena;
- CCAR Tank Building, renovating two large fish tanks and building enclosure; and
- Alumni Hall, renovation design (to construct additional offices).