

# Assessment of Student Learning Plan: **Technology Department**

Review of 2012-13 Academic Year

University of Southern Maine

## A. College, Department or Program, Date

College \_\_\_\_\_ **CSTH**  
Department or Program \_\_\_\_\_ **Technology**  
Date \_\_\_\_\_ **5/31/13**

## B. Department or Program Chair: \_\_\_ **John Zaner**

*\*(person responsible for completing this form)*

## C. Degree or other Program: \_\_\_ **Technology Mgmt & Applied Tech Leadership**

## D. Assessment of Student Learning

### **1: Has your department identified any Student Learning Outcomes? (What are students able to do by the end of your program?)**

- a. *List the most important student learning outcomes (3-5) that have been agreed upon in your department. Then, identify which student learning outcome (1-2) was assessed this past year.*

#### **1.COMMUNICATION**

A graduate should possess a level of understanding, skill, and attitude necessary to be able to effectively communicate verbally, in writing, and graphically. This includes competence with regard to the hardware and systems of modern day communication, as well as an understanding of information collection, resource identification, documentation, and related ethical and legal issues (copyright law, privacy, liability, etc.).

#### **2. QUANTITATIVE METHODS**

A graduate should possess a level of understanding and skill necessary to use and apply principles of mathematics and statistics.

#### **3. SCIENTIFIC PRINCIPLES AND METHODOLOGY**

A graduate should possess a level of understanding and skill necessary to use and apply scientific methodology and analytic techniques.

#### **4. BUSINESS AND ECONOMICS**

A graduate should possess a level of understanding, skill, and attitude of the business and economic principles that apply to operating an industry in today's global economy.

#### **5. MANAGEMENT & SUPERVISION**

A graduate should possess a level of understanding, skill, and attitude of modern day management and supervisory principles and practices.

#### **6. SAFETY AND HEALTH**

A graduate should possess a level of understanding, skill, and attitude relating to the ethical, legal and technical aspects of creating and maintaining a healthy and safe environment.

#### **7. PROFESSIONAL AND PERSONAL DEVELOPMENT AND RESPONSIBILITY**

A graduate should possess a strong educational foundation that prepares the individual to be a world-minded, intentional, life-long learner and practitioner. It should prepare the graduate with the knowledge and skills essential for their role as citizen, family member, consumer, producer and colleague.

#### **8. TECHNOLOGICAL PRINCIPLES AND SYSTEMS**

A graduate should possess a level of understanding, skill, and attitude relating to the technology and operation of technical systems. This includes concepts related to product/project life cycle, planning and development, service and production/construction processes, materials, and related information/computing systems.

## **2: How and When will the Learning Outcomes be assessed?**

- a. *Briefly describe the forms of evidence that were utilized this past year to demonstrate students' accomplishment of the learning outcome(s) selected, and when you implemented the assessment.*

Student achievement of program competencies takes place at the course and program levels using a variety of methods. The most detailed assessment of program competencies is done at the course level where competencies are broken down into course objectives the attainment of which are measured using exams, reports, presentations, and projects.

The results of those measures are reported to individual students through evaluation check sheets, comments, and grades to enable them to monitor their progress. The grades and course evaluations provide feedback to the faculty, which enables them to continually improve their courses.

Program level assessment measures consist of a graduating senior survey, an exit exam (Association of Technology, management & Applied Engineering certification exam), and an alumni survey. The graduating senior survey and alumni survey have been used for many years but the exit exam has only been used for four years, at this point. The results of the exam have been reviewed by the faculty and the exam has been accepted for all program concentrations except those which have adopted an alternative method of evaluation.

### **3. How did you use the Assessment results to Improve Student Learning?**

- a. *Briefly describe your unit's process for using the assessment data to improve student learning, and state what improvements or changes are being planned based upon the assessment results.*

The various levels of assessment are used to improve the program in different ways. At the course level, assessments are used to improve the individual courses at the content and pedagogy levels. The other assessment techniques (alumni survey, senior survey, and ATMAE exam) are discussed in faculty meetings and curricular implications considered and appropriate actions taken.

Specific recent results are that the ATMAE exam has been adopted as the default exit exam for the program and individual concentrations can adopt alternative instruments if they feel the ATMAE exam is not appropriate.

The graduating senior and alumni surveys both indicated that the students were generally quite satisfied with the program, but several students and graduates felt that it could be improved in the areas of: course sequencing, course rigor, more “real life” and laboratory applications, and out-of-class activities.

Responses to concerns about course rigor are being addressed by the higher level math requirements (Applied Calculus) for the degree and in individual courses. Responses to the concern for more “real-life” and laboratory activities are being addressed by individual faculty at the course level.