

INTRODUCTION

ABET is recognized by the Council for Higher Education Accreditation (CHEA) as the organization responsible for the accreditation of educational programs leading to degrees in engineering, engineering technology, computing, and applied science. ABET Accreditation has been accepted and embraced by organizations such as the National Council of Examiners for Engineering and Surveying (NCEES), by the relevant boards of licensure and certification, by the professional engineering and technical societies, and by numerous employers.

ABET accreditation is intended to accomplish the following specific objectives:

- To identify to the public, prospective students, student counselors, parents, educational institutions, professional societies, potential employers, governmental agencies, and state licensing or certification boards, specific programs that meet minimum criteria for accreditation.
- To provide guidance for the improvement of the existing and development of future educational programs in engineering, technology, computing, and applied science areas.
- To stimulate the improvement of engineering, technology, computing, and applied science education in the United States.

The USU Mechanical & Aerospace Engineering faculty and staff are committed to excellence and to continuous quality improvement and has adopted the ABET accreditation process as the vehicle for continuous quality improvement. A responsive assessment and feedback process involving major constituencies, including faculty, students, alumni, and industrial employers of students and graduates, is in place and ongoing.

ASSESSMENT AND EVALUATION

Assessment measures typically consist of, but are not limited to, student portfolios, student performance in project work and activity-based learning; results of integrated curricular experiences; relevant nationally-normed examinations; results of surveys to assess graduate and employer satisfaction with employment, career development, career mobility, and job title; and preparation for continuing education.

The MAE Assessment and Evaluation process is illustrated in Figures 1 and 2.

Assessment Strategies

- Senior Exit Interviews and Career Placement and Planning Surveys
 - Who employs our students
 - How many job offers
 - How many students plan to attend graduate school
 - How many acceptances and where for graduate education
 - Graduate fellowship/assistantships awarded

- Internship Employer Surveys
 - Ability to meet expectations for a-k program outcomes
 - Internships and co-op reports
 - Student and mentor reports

- Alumni Career Surveys
 - 1 year out
 - 3 years out

- Nationally-normed Examinations
 - Fundamentals of engineering exam (FEE)
 - GRE results

- Transcript and Resume Evaluation
 - Evaluate general education courses such as foreign languages
 - Evaluate balance of analyses and design courses

- Participation and Success in National Design Competitions
 - Society of Automotive Engineers Mini-Baja
 - American Institute of Aeronautics and Astronautics Design, Build and Fly
 - Society of Automotive Engineers Clean Snowmobile Challenge
 - NASA & AIAA Great Moonbuggy Race
 - RASAL Design Presentation
 - NASA Small Satellite design competition

- Outcomes from Undergraduate Research Experiences
 - Conference presentations
 - Published articles
 - Poster Papers