College of Engineering

College of Engineering Mission Statement

College's Mission Statement:

The mission of the College of Engineering is to prepare students for global professional practice, for admission to advanced degree programs, for leadership in their public and private lives, and for life-long learning in their chosen professions. We promote discovery, development, and dissemination of knowledge through excellence in research, and provide quality academic courses and continuing education to enhance the capability of practicing professional. Through our scholarly activity, we have the responsibility to be a major contributor to our state, region, and nation's economic and technology base, while contributing to the body of knowledge for an array of research topics. Our vision is to be an engine of innovation that integrates student-centered academics, relevant research, and meaningful outreach that advances Idaho and beyond.

1. Student Success: Retention

College Goal Statement:

Increasing the retention of first-year students in the College of Engineering

Action Plan:

We will be offering a new course (ENGR 123) that most First-Year students in the College will take starting in Fall 2022. The course focuses on both left-brain and right-brain skills that we hypothesize will improve student retention. Topics include critical thinking and engineering problem solving, oral communication skills, writing in the professional context, teamwork and leadership, professionalism, work ethic, development of a professional identity, and cultivation of life-long learning to ensure workforce success.

Achievement Indicators/Metrics:

We will track the retention of students in the College who take ENGR 123.

2: Meaningful Outreach: Enrollment of Underrepresented Students in Engineering

College Goal Statement:

Increasing enrollment of underrepresented students in the College of Engineering, include women, first generation college students, and ethnic minorities.

Action Plan:

We will reach out and offer opportunities for underrepresented students to attend events in the College that help them understand career opportunities in engineering and computer science and make informed choices about their future.

Achievement Indicators/Metrics:

We will track the number of students who attend College recruitment events and enroll in our degree programs in subsequent years.

3. Preparing Students for Leadership: Sustainability

College Goal Statement:

Establishing sustainable practices in the College of Engineering that support common goals of resiliency, economic vitality, environmental impact, and social development and contribute to the preparation of students for leadership in both their personal and professional lives.

Action Plan:

The College has established a working group of faculty and alumni that is developing a sustainability plan for the College in an effort to foster more sustainable practices in the College and give our students more hands-on opportunities to participate in sustainability projects as part of their preparation as both professional engineers and responsible citizens. Note: ABET, the Engineering accreditation body, has included sustainability in one of its Students Outcomes.

Achievement Indicators/Metrics:

Deployment of the College's Sustainability Plan will directly impact UI's AASHE Stars performance by making contributions to practices that enhance UI's rating. These same metrics can be used assess the achievement of the plan's objectives and help programs in the College meet accreditation standards.

Chemical and Biological Engineering

Upload Program's APR Self-Study Report: Attached Files

 ChemEBE_APR-Self-Study-Report.docx

Quality of Program's Self-Study Report: Fully Meets Expectations

Questionnaire has been completed: true

Recommendations:

1. For the BE program: Do not assess 100- or 200-level courses for ABET; any data should be used for "formative" assessment only. For the ChE program: Sr Exit Surveys and Alumni Surveys should not be use to 'assess' Student Outcomes. They should only be used to review PEOs.
2. Reconsider plans to conduct alumni feedback surveys. Returns rates are usually very low., which is why ABET no longer requires programs to assess Program Educational Objectives (PEOs). More time spent meeting/talking with potential employers will provide more valuable information for program improvement.
3. Consider sending some of the faculty to ABET's "Fundamentals of Assessment" workshops.

Civil and Environmental Engineering

Upload Program's APR Self-Study Report: Attached Files

📄 CEE_APR-Self-Study-Report-.docx

Quality of Program's Self-Study Report: Fully Meets Expectations

Questionnaire has been completed: true

Recommendations:

1. Continue to review and refine Program Goals.
2. When possible, use program assessment to drive curricular changes.
3. Continue to work closely with the Department's Advisory Board and other employers of CEE graduates to make sure they are meeting ever-evolving expectations in the workplace.

Computer Science

Upload Program's APR Self-Study Report: Attached Files

📄 CS_APR-Self-Study-Report.docx

Quality of Program's Self-Study Report: Fully Meets Expectations

Questionnaire has been completed: true

Recommendations:

1. Continue to review and refine Program Goals.
2. When possible, use program assessment to drive curricular changes.
3. Continue to work closely with the Department's Advisory Board and other employers of CS graduates to make sure they are meeting ever-evolving expectations in the workplace.

Electrical and Computer Engineering

Upload Program's APR Self-Study Report: Attached Files

📄 ECE_APR-Self-Study-Report.docx

Quality of Program's Self-Study Report: Fully Meets Expectations

Questionnaire has been completed: true

Recommendations:

1. Continue to review and refine Program Goals.
2. When possible, use program assessment to drive curricular changes.
3. Continue to work closely with the Department's Advisory Board and other employers of ECE graduates to make sure they are meeting ever-evolving expectations in the workplace.

Mechanical Engineering

Upload Program's APR Self-Study Report: Attached Files

📄 ME_APR-Self-Study-Report.docx

Quality of Program's Self-Study Report: Fully Meets Expectations

Questionnaire has been completed: true

Recommendations:

1. Continue to review and refine Program Goals.
2. When possible, use program assessment to drive curricular changes.
3. Continue to work closely with the Department's Advisory Board and other employers of ME graduates to make sure they are meeting ever-evolving expectations in the workplace.

Nuclear Engineering and Industrial Management

Upload Program's APR Self-Study Report: Attached Files

📄 NEIM_APR-Self-Study-Report.docx

Quality of Program's Self-Study Report: Partially Meets Expectations

Questionnaire has been completed: true

Recommendations:

1. Continue to review and refine Program Goals
2. Develop Learning Outcomes and a plan for assessing both graduate programs and certificate programs
3. Consider using exit surveys and performance (grades) in required courses of graduates to assess certificate programs

Nuclear Engineering and Technology Management

Quality of Program's Self-Study Report: Partially Meets Expectations

Questionnaire has been completed: true

Recommendations:

1. Continue to review and revise program goals as necessary.
2.

Strategic Recommendations and Partnerships

List of 3-5 Strategic Recommendations:

Improving an ever-changing world requires the knowledge and skill sets of a highly diverse engineering community. We aim to develop our student's professional skills in areas of inclusive leadership, communications, teamwork, diversity acumen, professional behavior, ethical decision making, and sustainability. These skills prepare our future engineers for competitive industry expectations and for making this world a better place for all individuals.

Partnerships:

The College of Engineering partners with a variety of organizations, industrial partners and corporations, public agencies, institutions, school districts and university-wide departments. These partnerships support our college strategic initiatives to develop student professional skills in areas of inclusive leadership, communications, teamwork, diversity acumen, professional behavior, ethical decision making, and sustainability. Our partners include, but are not limited to, Idaho National Laboratory, Micron, J-U-B Engineers, POWER Engineers, Idaho Power, and Schweitzer Engineering Laboratories. We also partner with the Idaho STEM Action Center and Idaho Space Grant Consortium to support local, regional and state-wide K-12 STEM educational efforts. The College of Engineering continues to partner with community colleges across Idaho and the region to create a pipeline for students into engineering.