ENGINEERING ACCREDITATION COMMISSION

Summary of Accreditation Actions

2024–2025 Accreditation Cycle

Weber State University
Ogden, UT, United States

Computer Engineering (Bachelor of Science)
Electrical Engineering (Bachelor of Science)
Manufacturing Systems Engineering (Bachelor of Science)
Mechanical Engineering (Bachelor of Science)

Accredit to September 30, 2031. A request to ABET by January 31, 2030 will be required to initiate a reaccreditation evaluation visit. In preparation for the visit, a Self-Study Report must be submitted to ABET by July 1, 2030. The reaccreditation evaluation will be a comprehensive general review.

ABET

ENGINEERING ACCREDITATION COMMISSION

WEBER STATE UNIVERSITY

OGDEN, UT, UNITED STATES

FINAL STATEMENT OF ACCREDITATION

2024-25 ACCREDITATION CYCLE

WEBER STATE UNIVERSITY

Ogden, UT, United States

ABET ENGINEERING ACCREDITATION COMMISSION

FINAL STATEMENT

VISIT DATES: SEPTEMBER 15-17, 2024
ACCREDITATION CYCLE CRITERIA: 2024-2025

INTRODUCTION & DISCUSSION OF STATEMENT CONSTRUCT

The Engineering Accreditation Commission (EAC) of ABET has evaluated the Computer Engineering (Bachelor of Science), Electrical Engineering (Bachelor of Science), Manufacturing Systems Engineering (Bachelor of Science), and Mechanical Engineering (Bachelor of Science) programs at Weber State University.

The statement that follows consists of two parts: the first addresses the institution and its overall educational unit, and the second addresses the individual programs.

A program's accreditation action is based upon the findings summarized in this statement. Actions depend on the program's range of compliance or non-compliance with the criteria. This range can be construed from the following terminology:

- **Deficiency** A deficiency indicates that a criterion, policy, or procedure is not satisfied. Therefore, the program is not in compliance with the criterion, policy, or procedure.

- **Weakness** A weakness indicates that a program lacks the strength of compliance with a criterion, policy, or procedure to ensure that the quality of the program will not be compromised. Therefore, remedial action is required to strengthen compliance with the criterion, policy, or procedure prior to the next review.

- **Concern** A concern indicates that a program currently satisfies a criterion, policy, or procedure; however, the potential exists for the situation to change such that the criterion, policy, or procedure may not be satisfied.

- **Observation** An observation is a comment or suggestion that does not relate directly to the current accreditation action but is offered to assist the institution in its continuing efforts to improve its programs.

INFORMATION RECEIVED AFTER THE REVIEW

- **Seven-Day Response** No information was received in the seven-day response period.

- **30-Day Due-Process Response** Information was received in the 30-day due-process response period relative to the Computer Engineering (Bachelor of Science), Electrical Engineering

(Bachelor of Science), Manufacturing Systems Engineering (Bachelor of Science), and Mechanical Engineering (Bachelor of Science) programs.

- **Post-30-Day Due-Process Response** Information was received in the post-30-day due-process response period relative to the Manufacturing Systems Engineering (Bachelor of Science) and Mechanical Engineering (Bachelor of Science) programs.

INSTITUTIONAL SUMMARY

Weber State University, a comprehensive, publicly- supported university, is composed of six colleges and one school, including the College of Engineering, Applied Science, and Technology. In fall 2024, the institution enrolled approximately 30,540 students, who were supported by 611 full-time faculty members and 454 part-time faculty members. The college enrolled 3,291 students, who were supported by 96 full- time faculty members, and 41 adjunct faculty members. The college produced 447 baccalaureate graduates in the 2023-24 academic year. The college offers four undergraduate engineering degree programs, all of which were evaluated during this review.

The following units were reviewed and found to provide adequate support to the engineering programs: mathematics, physics, chemistry, English, general studies, life sciences, library, computing services, institutional assessment, student success, career services, institutional finance, admissions, registrar, and safety.

INSTITUTIONAL STRENGTH

As a condition for initial employment, all faculty members in the College of Engineering, Applied Science, and Technology are required to have five or more years of industrial or government experience. As a result, the curriculum is very practice-oriented with real world applications and projects. The students become much sought after graduates as a result.

Computer Engineering

Bachelor of Science Program

Evaluated under EAC Program Criteria for
Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Engineering Programs

INTRODUCTION

The Computer Engineering (Bachelor of Science) program is housed in the Department of Electrical and Computer Engineering. In fall 2024 the program enrolled 156 students (92 full-time students and 64 part-time students), and was supported by three full-time faculty members, a part-time faculty member, and two staff members, all of whom are shared with other programs in the department. The college's Information Technology (IT) staff of technicians and specialists allot approximately 10 percent of their workload to the program. The program produced six graduates in the 2023-24 academic year.

PROGRAM WEAKNESS

Accreditation Policy and Procedure Manual

The Accreditation Policy and Procedure Manual (APPM) Section I.E.5.b.(1) states that the review team will examine the facilities to assure that instructional and learning environments are adequate and safe for the intended purposes. Throughout the facility tour, the team observed little to no evidence of posted safety signage in many laboratories. Furthermore, there was inconsistent availability and accessibility of personal protective equipment (PPE) and safety items. Unless instructional and learning environments are safe for their intended purposes, the safety of both students and staff members is at risk. Thus, the program lacks strength of compliance with the requirement implicit in the APPM.

30-Day Due-Process Response

The EAC acknowledges receipt of evidence of posted safety signs in the program's laboratories. Images of the placement of warning signs, the locations of personal protective equipment, first aid kits, and fire extinguishers, as well as the training requirements for using the equipment were provided.

Status

The program weakness has been resolved.

PROGRAM CONCERN

Criterion 8. Institutional Support

This criterion requires that resources including institutional services, financial support, and staff (both administrative and technical) provided to the program be adequate to meet program needs. The program uses multiple laboratories, well- equipped with new equipment, to deliver its curriculum. However, there are no dedicated technical staff members responsible for maintaining and administering the laboratories, but, rather these duties are the responsibility of faculty members. While this criterion is currently satisfied, as the equipment ages, there is the potential that faculty members may not be equipped and available to provide adequate maintenance of the laboratories and the equipment. Thus, future compliance with this criterion may be jeopardized.

30-Day Due-Process Response

The EAC acknowledges receipt of information that the program has hired a laboratory manager to oversee the Computer Engineering and Electrical Engineering laboratories. The new laboratory manager is scheduled to begin work in Aug 2025, however, documentation of the new hire was not provided.

Status

The program concern is unresolved.

Electrical Engineering

Bachelor of Science Program

Evaluated under EAC Program Criteria for
Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Engineering Programs

INTRODUCTION

The Electrical Engineering (Bachelor of Science) program is housed in the Department of Electrical and Computer Engineering. In fall 2024 the program enrolled 274 students (150 full-time students and 124 part-time students), and was supported by 5.5 full-time-equivalent faculty members, a part-time faculty member and two staff members, all of whom are shared with other programs in the department. The college's Information Technology (IT) staff of technicians and specialists allot approximately 10 percent of their workload to the program. The program produced 11 graduates in the 2023-24 academic year.

PROGRAM WEAKNESS

Accreditation Policy and Procedure Manual

The Accreditation Policy and Procedure Manual (APPM) Section I.E.5.b.(1) states that the review team will examine the facilities to assure that instructional and learning environments are adequate and safe for the intended purposes. Throughout the facility tour, the team observed little to no evidence of posted safety signage in many laboratories. Furthermore, there was inconsistent availability and accessibility of personal protective equipment (PPE) and safety items. Unless instructional and learning environments are safe for their intended purposes, the safety of both students and staff members is at risk. Thus, the program lacks strength of compliance with the requirement implicit in the APPM.

30-Day Due-Process Response

The EAC acknowledges receipt of evidence of posted safety signs in the program's laboratories. Images of the placement of warning signs, the locations of personal protective equipment, first aid kits, and fire extinguishers, as well as the training requirements for using the equipment were provided.

Status

The program weakness has been resolved.

PROGRAM CONCERN

Criterion 8. Institutional Support

This criterion requires that resources including institutional services, financial support, and staff (both administrative and technical) provided to the program be adequate to meet program needs. The program uses multiple laboratories, well- equipped with new equipment, to deliver its curriculum. However, there are no dedicated technical staff members responsible for maintaining and administering the laboratories, but, rather these duties are the responsibility of faculty members. While this criterion is currently satisfied, as the equipment ages, there is the potential that faculty members may not be equipped and available to provide adequate maintenance of the laboratories and the equipment. Thus, future compliance with this criterion may be jeopardized.

30-Day Due-Process Response

The EAC acknowledges receipt of information that the program has hired a laboratory manager to oversee the Computer Engineering and Electrical Engineering laboratories. The new laboratory manager is scheduled to begin work in Aug 2025, however, documentation of the new hire was not provided.

Status

The program concern is unresolved.

Manufacturing Systems Engineering

Bachelor of Science Program

Evaluated under EAC Program Criteria for
Manufacturing and Similarly Named Engineering Programs

INTRODUCTION

The Manufacturing Systems Engineering (Bachelor of Science) program is housed in the Department of Manufacturing and Systems Engineering. In fall 2024 the program enrolled 10 students (four full-time students and six part-time students) and was supported by three full-time-equivalent faculty members and three staff members. The program produced one graduate in the 2023-24 academic year.

PROGRAM WEAKNESSES

1. **Criterion 4. Continuous Improvement**

   This criterion requires that the program regularly use appropriate, documented processes for assessing and evaluating the extent to which the student outcomes are being attained. Although the processes for assessing and evaluating the extent to which student outcomes are attained are documented, the assessment of some outcomes uses artifacts and evaluation methods that do not provide adequate evidence of the attainment of all elements of the outcome. For example, the artifacts used to assess the attainment of Student Outcome (1) were the student's ability to use personal protective equipment and their ability to read a print (drawing) which appeared to have no relevance to a student's ability to identify, formulate and solve complex engineering problems, as required by this outcome. The assessment of the attainment of Student Outcomes (3), (4) and (5), used artifacts of the culminating design experience reports, specifically the executive summary and the quality plan. These artifacts lacked evidence of student's ability to communicate effectively with a range of audiences, as required for Student Outcome (3). Similarly, these artifacts lacked sufficient evidence of the student's ability to make informed judgements, which considered the impact of engineering solutions in global, environmental and societal contexts, as required for Student Outcome (4). Furthermore, these artifacts lacked evidence of a student's ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives, as required by Student Outcome (5). Without fully evaluating and documenting the extent to which all elements of the student outcomes are being attained, the program may miss opportunities for continuous improvement. Thus, strength of compliance with this criterion is lacking.

30-Day Due-Process Response

The EAC acknowledges receipt of information that the program plans to outline specific actions

that will be taken to address this shortcoming.

Status

The program weakness is unresolved.

Post-30-Day Due-Process Response

The EAC acknowledges receipt of documentation providing evidence of the assessment of Student Outcomes (1), (3), (4), and (5) using data collected in the the two-semester culminating design courses. The evidence included samples of student work, graded rubrics, course syllabi, final project presentations, along with faculty and peer evaluations of student participation and work. Review of the evidence revealed appropriate artifacts were used, and the evaluation data is being used as input for the continuous improvement of the program.

Status

The program weakness has been resolved.

2. **Accreditation Policy and Procedure Manual**

The Accreditation Policy and Procedure Manual (APPM) Section I.E.5.b.(1) states that the review team will examine the facilities to assure that instructional and learning environments are adequate and safe for the intended purposes. Throughout the facility tour, the team observed little to no evidence of posted safety signage in many laboratories. Furthermore, there was inconsistent availability and accessibility of personal protective equipment (PPE) and safety items. Unless instructional and learning environments are safe for their intended purposes, the safety of both students and staff members is at risk. Thus, the program lacks strength of compliance with the requirement implicit in the APPM.

30-Day Due-Process Response

The program did not provide a response to this shortcoming.

Status

The program weakness is unresolved.

Post-30-Day Due-Process Response

The EAC acknowledges receipt of photo evidence that illustrates the locations of safety signage at laboratory entry points and within the laboratories, as well as the locations of personal protective equipment and other safety equipment.

Status

The program weakness has been resolved.

PROGRAM CONCERN

Criterion 8. Institutional Support

This criterion requires that resources including institutional services, financial support, and staff (both administrative and technical) provided to the program be adequate to meet program needs. The program uses multiple laboratories, well- equipped with new equipment, to deliver its curriculum. However, there are no dedicated technical staff members responsible for maintaining and administering the laboratories, but, rather these duties are the responsibility of faculty members. While this criterion is currently satisfied, as the equipment ages, there is the potential that faculty members may not be equipped and available to provide adequate maintenance of the laboratories and the equipment. Thus, future compliance with this criterion may be jeopardized.

30-Day Due-Process Response

The program did not provide a response to this shortcoming.

Status

The program concern is unresolved.

Post-30-Day Due-Process Response

The EAC acknowledges receipt of evidence of a full- time laboratory manager who currently oversees all department laboratories. Evidence included the manage's resume and a detailed list of duties.

Status

The program concern has been resolved.

Mechanical Engineering

Bachelor of Science Program

Evaluated under EAC Program Criteria for
Mechanical and Similarly Named Engineering Programs

INTRODUCTION

The Mechanical Engineering (Bachelor of Science) program is housed in the Department of Mechanical Engineering. In fall 2024 the program enrolled 393 students (309 full-time students and 84 part-time students), and was supported by seven full-time faculty members, two part-time faculty members, and four staff members. The program produced 32 graduates in the 2023-24 academic year.

PROGRAM WEAKNESS

Accreditation Policy and Procedure Manual

The Accreditation Policy and Procedure Manual (APPM) Section I.E.5.b.(1) states that the review team will examine the facilities to assure that instructional and learning environments are adequate and safe for the intended purposes. Throughout the facility tour, the team observed little to no evidence of posted safety signage in many laboratories. Furthermore, there was inconsistent availability and accessibility of personal protective equipment (PPE) and safety items. Unless instructional and learning environments are safe for their intended purposes, the safety of both students and staff members is at risk. Thus, the program lacks strength of compliance with the requirement implicit in the APPM.

30-Day Due-Process Response

The EAC acknowledges receipt of images of safety signage and their location in unidentified laboratories. The issue of the availability and accessibility of personal protective equipment was not addressed.

Status

The program weakness is unresolved.

Post-30-Day Due-Process Response

The EAC acknowledges receipt of video evidence, identified by laboratory, that illustrates the placement of warning signs, the locations of personal protective equipment, first aid kits, and fire extinguishers. The documentation also included information about the training requirements for using laboratory equipment.

Status

The program weakness has been resolved.

PROGRAM CONCERN

Criterion 8. Institutional Support

This criterion requires that resources including institutional services, financial support, and staff (both administrative and technical) provided to the program be adequate to meet program needs. The program uses multiple laboratories, well- equipped with new equipment, to deliver its curriculum. However, there are no dedicated technical staff members responsible for maintaining and administering the laboratories, but, rather these duties are the responsibility of faculty members. While this criterion is currently satisfied, as the equipment ages, there is the potential that faculty members may not be equipped and available to provide adequate maintenance of the laboratories and the equipment. Thus, future compliance with this criterion may be jeopardized.

30-Day Due-Process Response

The program did not provide a response to this shortcoming.

Status

The program concern is unresolved.

Post-30-Day Due-Process Response

The EAC acknowledges communication with the program that indicates they will continue to use faculty and paid student workers to oversee laboratory operations until increases in student enrollment support the need for a laboratory technician.

Status

The program concern is unresolved.