

ENGINEERING ACCREDITATION COMMISSION

Summary of Accreditation Actions

2022-2023 Accreditation Cycle

Western Washington University Bellingham, WA, United States

Electrical and Computer Engineering (B.S.) Manufacturing Engineering (B.S.) Polymer Materials Engineering (B.S.)

Accredit to September 30, 2029. A request to ABET by January 31, 2028 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, 2028. The reaccreditation evaluation will be a comprehensive general review.



ENGINEERING ACCREDITATION COMMISSION

WESTERN WASHINGTON UNIVERSITY

BELLINGHAM, WA, UNITED STATES

FINAL STATEMENT OF ACCREDITATION

2022-23 ACCREDITATION CYCLE

WESTERN WASHINGTON UNIVERSITY

Bellingham, WA, United States

ABET ENGINEERING ACCREDITATION COMMISSION

FINAL STATEMENT

VISIT DATES: OCTOBER 9-11, 2022 ACCREDITATION CYCLE CRITERIA: 2022-2023

INTRODUCTION & DISCUSSION OF STATEMENT CONSTRUCT

The Engineering Accreditation Commission (EAC) of ABET has evaluated the Electrical and Computer Engineering (B.S.), Manufacturing Engineering (B.S.), and Polymer Materials Engineering (B.S.) programs at Western Washington 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** No information was received in the 30- day due- process response period.

INSTITUTIONAL SUMMARY

Western Washington University (WWU) is a comprehensive state university comprised of seven colleges. The College of Science and Engineering (CSE) offers three engineering programs, all of which were evaluated during this visit. The college has 1,973 students, 131 full-time faculty members, and 72 adjunct faculty members. The college produced 624 graduates in the 2021-22 academic year. Faculty members are active in the scholarship of both teaching and research. WWU students are predominantly in-state students, with approximately 13 percent enrolled from out-of-state or from other countries. A substantial fraction of students transfer to the CSE from local community colleges. Approximately six months before the EAC of ABET accreditation visit, the dean was named to the position of provost, and the college leadership was assumed by an interim dean.

The following units were reviewed and found to adequately support the engineering programs: mathematics, physics, chemistry, library, career services, finance, registrar, and admissions.

INSTITUTIONAL STRENGTHS

- 1. Western Washington University's focus on undergraduate students pervades all levels of the institution. This focus is evident in the engineering programs by the hands-on nature of the curricula, the well- equipped laboratory facilities, the careful management of enrollment numbers, the high level of faculty-student interaction, and the involvement of undergraduates in faculty research projects. As a result, engineering graduates are highly sought by regional industrial employers.
- 2. The engineering programs enjoy very productive working relationships with multiple industry partners. These partnerships support a high- quality learning infrastructure while also encouraging beneficial exchanges between industry practitioners, faculty members, and students. These relationships result in an exceedingly productive learning environment.

Electrical and Computer Engineering

B.S. Program

Evaluated under EAC Program Criteria for

Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Engineering Programs

INTRODUCTION

The Electrical and Computer Engineering (B.S.) program, housed in the Department of Engineering and Design, emphasizes the areas of energy, electronics, wireless networking and signal processing, and artificial intelligence and machine learning. The program has 229 students, 10 full-time faculty members, one part-time faculty member, and shares three administrative and eight technical staff members with other programs. The program produced 32 graduates in the 2021-22 academic year.

No deficiencies, weaknesses, or concerns were found.

Manufacturing Engineering

B.S. Program

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

INTRODUCTION

The Manufacturing Engineering (B.S.) program, housed in the Department of Engineering and Design, emphasizes the development of industry- ready graduates through a combination of creative problem solving, analytical skills development, and experiential learning. The program has 137 students, five full-time faculty members, one part-time faculty member, and shares three administrative and eight technical staff members with other programs. The program produced 18 graduates in the 2021-22 academic year. Community college transfer students comprise approximately 40 percent of the enrollment in the program.

PROGRAM STRENGTH

The program utilizes robust laboratory facilities for a wide range of conventional, computer numerical control (CNC), additive, and robotic manufacturing activities. There is a balanced mix of both new and exceptionally well-maintained older processing equipment. Safety of operation is a very high priority as reflected by the machinery placement, spacing, high- quality utility connections, work cell designs, safety procedures, and optimal utilization of abundant project workspaces. These facilities provide the students with an excellent understanding of the capabilities that exist across a wide industrial spectrum, thereby significantly enhancing the graduates' career opportunities.

No deficiencies, weaknesses, or concerns were found.

Polymer Materials Engineering

B.S. Program

Evaluated under EAC Program Criteria for Materials, Metallurgical, Ceramics and Similarly Named Engineering Programs

INTRODUCTION

The Polymer Materials Engineering (B.S.) program, housed in the Department of Engineering and Design, emphasizes the areas of polymeric and composite materials design, processing, economics, testing, and analysis. The program has 82 students, four full-time faculty members, one part-time faculty member, and shares three administrative and eight technical staff members with other programs. The program produced 19 graduates in the 2021-22 academic year. The program began the process of changing its name from Plastics and Composites Engineering (B.S.) in the 2022-23 academic year and, in anticipation of that change, this review was completed using the program criteria for materials, metallurgical, ceramics and similarly named engineering programs. The first graduate under the new program name occurred in December 2022.

PROGRAM STRENGTH

The program has robust and fully equipped laboratories for polymeric materials characterization, processing, and recycling. These facilities provide students with an exceptional hands-on learning experience and a deep understanding for the full suite of equipment and instruments used by the industry, thereby enhancing the graduates' career opportunities.

No deficiencies, weaknesses, or concerns were found.