Accreditation Criteria for
Accrediting Engineering Technology Programs
TAC2024
Institute of Engineering Education Taiwan
Accreditation Council

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Criterion 1: Program Educational Objectives
This criterion assesses the program's educational objectives (PEOs). The program seeking accreditation must:
1.1 publish detailed PEOs that demonstrate the program's characteristics and relevance to contemporary trends and societal demands;
1.2 describe the relationship between the PEOs of the program and those of the institution, as well as the process of establishing these objectives;
1.3 institutionalize an effective assessment plan to ensure the achievement of the PEOs.

Criterion 2: Students
This criterion assesses the quality of education for students. The program seeking accreditation must:
2.1 develop and implement appropriate regulations that are consistent with the PEOs;
2.2 develop and implement measures and policies encouraging students to engage in academic exchange and related learning activities;
2.3 institutionalize an effective advising system.

Criterion 3: Graduate Attributes
This criterion assesses the graduate attributes. The program must demonstrate that students have attained the following outcomes by graduation:
3.1 ability to apply with familiarity of knowledge, skills, and current tools required for engineering technology practice;
3.2 ability to conduct standard operating procedures and to design, conduct, analyze, interpret, and apply experiments to improve engineering technology practice;
3.3 ability to apply innovation in engineering technology practice;
3.4 ability to manage projects, communicate effectively, and function on teams;
3.5 ability to identify, analyze, and solve broadly defined engineering technology problems within realistic constraints;
3.6 knowledge of contemporary issues; an understanding of the impact of engineering technology solutions in environmental sustainability, social good, and global contexts; and the ability and habit to engage in lifelong learning;
3.7 apply ethical principles and commit to professional and information ethics responsibilities and norms of engineering technology practice, and a sense of respect for diversity.

Criterion 4: Curriculum and Teaching
This criterion assesses the curriculum and teaching of the program:
4.1 The design and contents of the curriculum must be consistent with the PEOs, and the program must demonstrate through transcript analysis that the coursework of each graduate includes the following three major components: mathematics and basic sciences, engineering technology professional component, and general education. Specifically:
    4.1.1 mathematics and basic sciences must be appropriate to the attainment of the PEOs and training of students for engineering technology practice;
    4.1.2 engineering technology and professional component that trains students to be proficient in

engineering technology practice must account for at least three-eighths of the credits required for graduation, including: 1. Capstone design project and 2. Eight credits of at least 288 hours of lab or technical components that involve major elements of engineering technology design (up to two credits of at least 72 hours of lab or technical components can be waived from internship courses that are in alignment with the PEOs);

4.1.3 the general education component must complement the technical contents of the discipline and be consistent with the PEOs.

4.2 Design and implementation of the curriculum must correlate with the development of the industry, reflect, and improve to prepare students to culminate the learned knowledge and skills in engineering technology practice.

Criterion 5: Faculty

This criterion assesses the faculty of the program with regard to the following:

5.1 the full-time faculty must be of a sufficient number;

5.2 the faculty must be involved in the formation and execution process of the PEOs;

5.3 the faculty must have the qualifications and competencies to cover the professional knowledge of the subject areas in which they teach, at least half the faculty should have two or more years of related industry experience or have Class B (or equivalent) certified Technician or above certification;

5.4 the program must demonstrate the effectiveness of faculty-student interactions and student advising;

5.5 the program must demonstrate the effectiveness of interactions of the faculty with industry;

5.6 the program must provide the faculty with the appropriate channels and incentives for professional growth and development;

5.7 the faculty must participate in relevant academic and professional organizations and activities.

Criterion 6: Space and Facilities

This criterion assesses instructional facilities, space, and hard and software:

6.1 the program must provide an environment to foster effective faculty-student interaction and support the development of professional knowledge and skills of students;

6.2 the program must provide appropriate opportunities, guidance, computing, and information infrastructure for students to become proficient of the specialized equipment and tools;

6.3 the program must provide a safe learning environment and have an appropriate system in place to maintain, upgrade, and manage these facilities.

Criterion 7: Institutional Support and Financial Resources

This criterion assesses the institutional support and financial resources of the program:

7.1 the institution must provide adequate administrative personnel, technical staff, and financial resources to ensure the quality and continuity of the program, along with constructive leadership and management;

7.2 resources must be sufficient to support the ongoing professional development of the faculty and students;

7.3 administrative personnel and technical staff must be adequate to meet the program's needs;

7.4 financial resources must be sufficient to acquire, maintain, and operate the facilities, infrastructure, and equipment appropriate for the program to support educational needs.

Criterion 8: Continuous Improvement

This criterion assesses the mechanism and implementation of continuous improvement. The program seeking accreditation must:

8.1   have a mechanism for continuous improvement;

8.2   demonstrate the implementation of continuous improvement.