

Assessment of ABET Engineering Outcomes  
Department of Polymer and Fiber Engineering

During Each Term

- a. Determine outcome assessed for each exam/test/quiz question and homework problem. (See suggested template(s))
- b. Assign a value from 0 (lowest) to 10 (highest) for student performance on each exam/test/quiz question and homework problem.

End of Each Term

- a. Compile outcomes assessment (ABET outcomes a-k, as appropriate) for each course.
- b. Maintain a file of qualitative assessments (e.g., unsolicited student letters) for inclusion in compiled course materials.
- c. Submit course outcomes assessment report(s) to Department Head. (To view a copy of the form click [here](#).)

End of Academic Year

Department Head will prepare a comprehensive report of outcomes giving outcomes assessment and distribute to all faculty and Associate Dean for Assessment. This will include not only outcomes for specific courses but also a longitudinal assessment of outcomes across the curriculum.

Every Year

- a. Department faculty will review outcomes assessments and qualitative assessments for two previous years and make changes as required.
- b. Department will conduct an on-line alumni objectives/outcomes survey.
- c. Department will send out industry satisfaction survey.

## Program Objectives<sup>1</sup>

- a. Graduates will be able to analyze structure-property relationships in fibers and fibrous assemblies—fibers, yarns, conventional and non-conventional fabrics, and composite materials—and understand how these properties are affected by manufacturing methods.
- b. Graduates will have the necessary foundation in mathematics, the physical sciences, and engineering to pursue advanced degrees in fibers, polymers, and related disciplines.
- c. Graduates will take away from their courses, research projects, and general studies the required skills for problem solving, critical thinking, and communication that will make them successful in their chosen careers.
- d. Graduates will have acquired the skills necessary to learn throughout their careers.

## Program Outcomes<sup>2</sup>

- a. Graduates will exhibit proficiency in the development design, and presentation of independent research projects. (3a, b, c, e, g, k)
- b. Graduates will find ready employment in industry or be enrolled in graduate programs. (3a, e, f, g)
- c. Graduates will be expected to provide technical support and leadership to the fiber, textile, and allied industries. (3d, f, h, i, j)
- d. Graduates will have acquired the skills necessary to learn throughout their careers. (3i)

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<sup>1</sup> From ABET Self-Study, modified 17 November 2004

<sup>2</sup> From ABET Self-Study, ABET Outcomes in parentheses

### ABET Outcomes<sup>3</sup>

- a. An ability to apply knowledge of mathematics, science and engineering
- b. An ability to design and conduct experiments, as well as analyze and interpret data
- c. An ability to design a system, component, or process to meet desired needs
- d. An ability to function on multi-disciplinary teams
- e. An ability to identify, formulate, and solve engineering problems
- f. An understanding of professional and ethical responsibility
- g. An ability to communicate effectively
- h. A broad education necessary to understand the impact of engineering solutions in a global and societal context
- i. A recognition of the need for, and ability to engage in life-long learning
- j. A knowledge of contemporary issues
- k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

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<sup>3</sup> Criterion 3