Plastics Engineering Technology Program Educational Objectives (approved 3/8/2013 by PET IAC):
Program educational objectives are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program’s constituencies.

The Plastics Engineering Technology program at Western Washington University will prepare graduates with the skills to enter careers in the plastics and composites industries in the areas of: processing, materials, product design, molds/tooling, quality, sales, and technical management. Graduates will:

- Understand and integrate knowledge of mathematics, physics, chemistry, and materials science for the development of a broad range of plastics and composites manufacturing components.
- Demonstrate extensive knowledge of current polymeric and composite materials and processing methods and adapt to emerging technologies.
- Build breadth of experience to be capable of understanding areas of manufacturing and business outside their primary discipline.
- Develop the ability to apply creativity in the design of systems, components, or processes and use appropriate tools to solve problems.
- Demonstrate strong organizational skills and effective oral, written, and graphical communication skills, and show the ability to work independently, as a leader, or collaboratively as a member of a team. Graduates will demonstrate the ability to work in an efficient, timely manner to meet technical and business goals.
- Understand their professional and ethical responsibility and the impact of engineering solutions in a global and societal context through a well-rounded liberal arts core.

Plastics Engineering Technology Program Student Outcomes (approved 3/8/2013 by PET IAC):
Student outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the knowledge, skills, and behaviors that students acquire as they progress through the program.

a) a. an ability to select and apply the knowledge, techniques, skills, and modern tools of the discipline to broadly-defined engineering technology activities;

a.1. Materials: material science concepts, test methods, design of material formulations, material selection based on application requirements

a.2. Processing: ability to safely perform primary and secondary manufacturing operations, understand relationship between material, product, and processing, adapt processing to different materials and product designs, ability to troubleshoot and optimize

a.3. Design: design process, economics, knowledge of the tools of design including CAD, CAM, statics, strengths

a.4. Quality: ability to quantify and interpret performance in relationship to objectives

a.5. Management: ability to successfully manage projects and operations to meet objectives and milestones
b) an ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies;

c) an ability to conduct standard tests and measurements; to design, conduct, analyze, and interpret experiments; and to apply experimental results to improve processes;

d) an ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives;

e) an ability to function effectively as a member or leader on a technical team;

f) an ability to identify, analyze, and solve broadly-defined engineering technology problems;

g) an ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature;

h) an understanding of the need for and an ability to engage in self-directed continuing professional development;

i) an understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity;

j) a knowledge of the impact of engineering technology solutions in a societal and global context;

k) a commitment to quality, timeliness, and continuous improvement.