PLASTICS PROCESSING, CERTIFICATE

Requirements for an undergraduate certificate may be completed at any campus location offering the specified courses for the certificate.

Program Description

This 16-17 credit program is designed to provide students with an understanding of the basics of the materials and processes used to produce plastic parts. Students learn modern processing techniques and testing methods for plastics.

What is Plastics Processing?

Plastics processing is the study of the materials and processes used to produce usable, cost-effective plastic parts and components. Because plastics are everywhere, graduates with plastics experience find employment in any industry sector that interests them. Automotive, aerospace, medical, electronics, computer, toy, and consumer products manufacturers are among the industries that value advanced knowledge of plastics processing.

You Might Like This Program If...

- You want to add plastics processing expertise to your major degree program.
- You envision yourself working in an plastics-intensive industry such as toy- or consumer-products design or production.

Program Requirements

To earn an undergraduate certificate in Plastics Processing, a minimum of 16 credits is required.

Code	Title	Credits
Prescribed Courses		
PLET 205	Introduction to Plastics	3
PLET 206W	Plastic Materials and Properties	3
PLET 222	Introduction to Plastics Processing	4
PLET 227	Plastics Processing & Statistical Methods	4
Select one of the following:		2-3
PLET 50	Computer Applications for Plastics Engineering Technology	
MET 107	Computer Applications for Technologists	
EDSGN 100	Cornerstone Engineering Design	
EDSGN 100S	Introduction to Engineering Design	

Certificate Learning Objectives

- **Material Testing:** Students will demonstrate technical competency in carrying out tests to determine plastic properties commonly used to evaluate plastic materials.
- **Process Development:** Students will demonstrate technical competency in setting up and developing a robust injection molding process.
- **Process Troubleshooting:** Students will demonstrate technical competency in troubleshooting common injection molding defects.

Academic Advising

The objectives of the university's academic advising program are to help advisees identify and achieve their academic goals, to promote their intellectual discovery, and to encourage students to take advantage of both in-and out-of class educational opportunities in order that they become self-directed learners and decision makers.

Both advisers and advisees share responsibility for making the advising relationship succeed. By encouraging their advisees to become engaged in their education, to meet their educational goals, and to develop the habit of learning, advisers assume a significant educational role. The advisee's unit of enrollment will provide each advisee with a primary academic adviser, the information needed to plan the chosen program of study, and referrals to other specialized resources.

READ SENATE POLICY 32-00: ADVISING POLICY (https://senate.psu.edu/policies-and-rules-for-undergraduate-students/32-00-advising-policy/)

Erie

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Career Paths

The certificate in Plastics Processing is available to most students majoring in Penn State Behrend School of Engineering degree programs. Penn State Behrend has a comprehensive support system to help you identify and achieve your goals for college and beyond. Meet with your academic adviser often and take advantage of the services offered by the Academic and Career Planning Center beginning in your first semester.

Careers

A certificate in Plastics Processing widens your engineering career opportunities by giving your broad engineering education an element of specialization.

MORE INFORMATION ABOUT POTENTIAL CAREER OPTIONS FOR GRADUATES WITH A CERTIFICATE IN PLASTICS PROCESSING (https://behrend.psu.edu/school-of-engineering/academic-programs/certificate-programs/plastics-processing-certificate/)

Opportunities for Graduate Studies

Students interested in plastics processing can pursue master's and doctoral degrees in plastics engineering, polymer science, materials science, medical plastics, and elastomeric materials.

MORE INFORMATION ABOUT OPPORTUNITIES FOR GRADUATE STUDIES (https://behrend.psu.edu/school-of-engineering/academic-programs/certificate-programs/plastics-processing-certificate/)

Professional Resources

- ABET (https://www.abet.org/)
- Society of Plastics Engineers (https://www.4spe.org/membership/)
- Society of Women Engineers (https://societyofwomenengineers.swe.org/)
- National Society of Black Engineers (https://www.nsbe.org/home.aspx)

Contact

Erie

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https://behrend.psu.edu/school-of-engineering (https://behrend.psu.edu/school-of-engineering/)