The Polymer Processing & Manufacturing Capstone is a fully online certificate program that covers advanced analysis and modeling of plastics extrusion, injection molding, and other processes; mold and equipment design; along with materials consideration.

**HOW TO GET IN**

This capstone certificate is geared toward those with an academic background in Engineering (Chemical, Mechanical, Materials, Biomedical, Biological Systems, Civil, Etc). Students entering the program are expected to have completed an undergraduate degree in an Engineering Field, or Chemistry, Biochemistry, Food Science or Physics.

Applicants must possess a baccalaureate degree. Applications are accepted for Fall by July 15th and Spring by November 1st. Adult Career and Special Student Services (ACSSS) is the admitting office for all University Special students, including capstone certificate students. However, the department offering the capstone certificate program makes the final admission decision upon review of all applicant materials.

**Admission requirements for the Capstone Certificate are:**

1. Hold bachelor's degree or equivalent credential from an accredited college or university.
2. A minimum undergraduate grade-point average (GPA) of 3.00 on the equivalent of the last 60 semester hours (approximately two years of work) or a master's degree with a minimum cumulative GPA of 3.00. Applicants from an international institution must have a strong academic performance comparable to a 3.00 for an undergraduate or master's degree.
3. Applicants whose native language is not English must provide scores from the Test of English as a Foreign Language (TOEFL). The minimum acceptable score on the TOEFL is 580 on the written version, 243 on the computer version, or 92 on the Internet version.

**Exceptions to standard admission requirements are considered by the admissions committee on an individual basis.** Students may be admitted with deficiency, but will be expected to complete the necessary leveling courses.

**Application steps**

1. Communicate *Intent to Apply* to the program: Send an email to EPD Student Services at studentservices@epd.wisc.edu, and state an intent to apply to the certificate. Attach an unofficial transcript that shows cumulative GPA and bachelor's degree received.

2. Submit an online application for admission ([https://acsss.wisc.edu/apply/](https://acsss.wisc.edu/apply/)) as a University Special student, selecting UNCS Capstone Certificate and the program: Polymer Processing & Manufacturing. This application is received and processed by ACSSS with final decision held for approval from the specific capstone certificate coordinator.

3. Arrange to have transcripts of all previous educational institutions and a letter of recommendation sent directly to EPD Student Services: Attn: Letter_of_Rec_Form-CapstoneCert.pdf which should be sent by email directly by your recommender to the admissions committee at studentservices@epd.wisc.edu.

4. After all of application materials have been received, the admissions committee chair contacts applicants for a phone interview. After the interview, the complete application will be presented to the Admissions Committee for evaluation.

**Final admissions decision**

Admission decisions are made in the order completed applications are received. The committee will make one of the following decisions:

- Recommend admission
- Decline further consideration of your application.

After a decision is made, student services will contact applicants by email to inform them of the decision and to schedule a time to discuss the decision and any next steps. The ACSSS is also notified of the final admission decision and completes the formal process for UW–Madison admissions.

**REQUIREMENTS**

The curriculum is 9 credits chosen from the following list. Students must complete any courses with a minimum GPA of 2.00 in each class in order to continue to the next class.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>M E 419</td>
<td>Fundamentals of Injection Molding</td>
<td>3</td>
</tr>
<tr>
<td>M E 514</td>
<td>Additive Manufacturing</td>
<td>3</td>
</tr>
<tr>
<td>M E/E M A 570</td>
<td>Experimental Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>M E 717</td>
<td>Advanced Polymer Processing</td>
<td>3</td>
</tr>
<tr>
<td>M E 718</td>
<td>Modeling and Simulation in Polymer Processing</td>
<td>3</td>
</tr>
</tbody>
</table>

**LEARNING OUTCOMES**

1. Explain the common synthetic strategies for the fabrication of polymers.
2. Evaluate issues in manufacture and processing to make a material or compound.
3. Analyze outcomes of polymer materials based on properties such as viscoelasticity.

**PEOPLE**

Prof. Tim Osswald
Prof. Lih-Shen 'Tom' Turng
Dr. Nicole Zacharia