

ENGINE DESIGN, CAPSTONE CERTIFICATE

Admissions to the Engine Design Capstone Certificate have been suspended as of spring 2024 and will be discontinued as of fall 2024. If you have any questions, please contact the department.

The Engine Design Capstone is a fully online certificate program that follows a three-course sequence to help you develop your engine design skills. Some of our past students have received a patent for their design project work! Fuel your passion for engines and advance your career! Get the key skills you need to become an engine design engineer.

HOW TO GET IN

Admissions to the Engine Design Capstone Certificate have been suspended as of spring 2024 and will be discontinued as of fall 2024. If you have any questions, please contact the department.

This certificate is geared toward those with an academic background in Mechanical Engineering.

Applicants must possess a baccalaureate degree. Applications are accepted for Fall, Spring, and Summer, on a rolling basis. 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 in Mechanical Engineering 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. Submit an online application for admission (<https://acsss.wisc.edu/apply/>) as a University Special student, selecting UNCS Capstone Certificate and the program: Engine Design. This application is received and processed by ACSSS with final decision held for approval from the specific capstone certificate coordinator.

2. Arrange to have transcripts of all previous educational institutions sent directly to EPD Student Services: studentservices@epd.wisc.edu

Note: Transcripts should be sent directly by the educational institution to the program.

3. 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 of the following courses, which must be taken in order. Students must complete all courses with a cumulative GPA of 3.0 to be awarded the certificate.

Code	Title	Credits
E P D 622	Engine Design I	3
E P D 623	Engine Design II	3
E P D 630	Engine Design III	3
Total Credits		9

MINIMUM REQUIREMENTS FOR CAPSTONE CERTIFICATE COMPLETION

- Students must earn a minimum grade of C in each course used to meet Capstone Certificate requirements.
- Courses in which a student elects the pass/fail or audit option will not count toward completion of Capstone Certificate requirements.
- All of the Capstone Certificate credits must be earned "in residence" (which includes on campus and distance-delivered courses) at UW-Madison.
- All of the Capstone Certificate credits must be earned while enrolled in the Capstone Certificate program.

Individual Capstone Certificate programs may have additional requirements for completion, which will be listed above as/if applicable.

LEARNING OUTCOMES

1. Identify engine development projects and their key design points, incorporating resource estimates and justification.

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2. Use flexible tooling approaches for machining major engine components, identifying the advantages and disadvantages and other key variables.
3. Select any component or sub-system within a particular engine and create and justify a design validation test sequence appropriate to the selection for that engine.