



Duluth Campus

Resilient Precast Concrete Certificate

UMD-Civil Engineering, Dept of

Swenson College of Science and Engineering

- Program Type: Undergraduate credit certificate
- Requirements for this program are current for Fall 2018
- Required credits to graduate with this degree: 16

The focus of the Resilient Precast Engineering Certificate (RPEC) program is two-pronged. Participants will attain the skill and understanding required to design precast concrete structures, and in the process, learn how to apply resiliency-based values to their decision-making. Throughout the process, the professional and communication skills of the participants will also be honed. Participants who have completed the five-course curriculum will graduate with a deeper knowledge related to the engineering, resiliency, and business aspects of precast concrete.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Admission Requirements

Students must complete 45 credits before admission to the program.

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

Required prerequisites

Pre-major Requirements (3 cr)

[CE 3115](#) - Structural Analysis (3.0 cr)

General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

Program Requirements

Requirements (13 cr)

[CE 4126](#) - Design of Concrete Structures (3.0 cr)

[CE 4100](#) - Applications of Management in Resilient Precast Concrete (1.0 cr)



[BUS 2400](#) - Fundamentals of Organizational Management (2.0 cr)

[CE 4128](#) - Prestressed Concrete Structures (3.0 cr)

or [CE 5128](#) - Prestressed Concrete Structures (3.0 cr)

Senior Design

[CE 4255](#) - Senior Design (4.0 cr)