

ARCHITECTURAL ENGINEERING (MS)

Offered at: San Luis Obispo Campus

<https://arce.calpoly.edu/content/programs/graduate>

The MS Architectural Engineering program is designed for students interested in strengthening their understanding of structural behavior and the relationship between structures, architecture, and construction.

Requirements for Admission

Students apply via Cal State Apply (<https://www.calstate.edu/apply/>) including a personal statement describing their motivations for graduate study, contact information for three references to provide letters of recommendation, and an official transcript.

International Students must meet all the standard eligibility criteria and demonstrate proficiency in English (English Proficiency Exam Requirements)

Prerequisites: Bachelor's of science degree in civil, architectural or structural engineering with an emphasis in structures.

Minimum GPA: 3.0.

Application due date: Please see Graduate Student Dates and Deadlines (<https://www.calpoly.edu/admissions/graduate-student/dates-and-deadlines/>) for application deadlines.

Advancement to Candidacy

Completion of at least 6 units of graduate coursework with cumulative and higher ed GPA of 3.0 or higher and an approved culminating experience proposal

Culminating Experience

Culminating experience options include a thesis option, a project option or a comprehensive exam option. Both the thesis and project options require 2 semesters of graduate research totaling 6 units of ARCE 5598. A project differs from a thesis in that more than one student can work on a project where their individual contributions to the research are unique and clearly defined.

A blended program provides an accelerated route to a graduate professional degree, with simultaneous conferring of both Bachelor's and Master's degrees. Students in the blended program are provided with a seamless process whereby they can progress from undergraduate to graduate status. Students are required to complete all requirements for both degrees, including senior project for the Bachelor's degree.

Blended Options

BS Architectural Engineering + MS Architectural Engineering

Units Double Counted

Up to 7 units of program courses can be double counted towards graduate degree requirements.

Requirements for Admission for the Blended Program

Students apply directly to the program and not through Cal State Apply; please contact the department graduate coordinator (<https://grad.calpoly.edu/about/coordinators.html>).

- Minimum GPA: 3.0
- Timeline for Admission: apply the term before degree completion.
- Application materials: online application including written statement and ARCE course GPA / overall GPA. See MS Architectural Engineering website (<https://arce.calpoly.edu/content/programs/graduate/>) for more details.

Program Learning Objectives

1. Formulate and solve advanced structural engineering problems.
2. Analyze and model non-linear building response.
3. Design a building system, component, or process to meet desired needs within realistic constraints such as regulatory, economic, environmental and constructability.
4. Function in interdisciplinary teams for the design and construction of buildings.
5. Communicate effectively.

Code	Title	Units
REQUIRED COURSES		
ARCE 5511	Advanced Structural Mechanics	3
ARCE 5512	Nonlinear Structural Behavior	3
ARCE 5521	Finite Element Method for Building Structures	3
ARCE 5522	Performance-Based Structural Systems Behavior	3
ARCH 5540	Interdisciplinary Testing	3
Select from the following:		6
ARCE 5598	Project ¹	
ARCE 5597	Comprehensive Examination ²	
& 5000 level Approved Electives ^{2, 3}		
Approved Electives		
Select any 5000 level ARCE, ARCH, CRP, or CE courses ³		9
Total Units		30

¹ Course may need to be repeated to complete this requirement.

² ARCE 5597 and 6 units of Approved Electives can be taken in place of the ARCE 5598.

³ Courses can only be used once for major degree credit.