

# SCHOOL OF ENGINEERING AND COMPUTER SCIENCE

<https://engineering.pacific.edu/engineering>

Phone: (209) 946-2151

Location: John T. Chambers Technology Center

Elizabeth Orwin, Dean

## Programs Offered

**Master of Science in Computer Science**

**Master of Science in Cybersecurity**

**Master of Science in Data Science**

**Master of Science in Engineering**

## MS Engineering Concentrations

**Civil Engineering (Environmental, Structural)**

**Computer Engineering / Electrical Engineering**

**Engineering Management**

**Mechanical Engineering**

## Certificates Offered

**Certificate in Cybersecurity Management-Cloud, Mobile and Privacy**

**Certificate in Cybersecurity Operations**

**Certificate in Securing Enterprise Systems**

## Mission

The mission of the School of Engineering and Computer Science is to deliver transformative learning experiences that prepare our graduates to meet society's greatest challenges.

## Admission Criteria for Master of Science in Computer Science

The following admissions requirements have been set for entry into the program:

- Bachelors degree
- Official university transcript(s) showing a 3.0/4.0 GPA
- One letter of recommendation
- Personal Statement

## Academic Policies for Master of Science in Computer Science

### Computer Science Prerequisite Requirement

All course prerequisites in the MS in Computer Science program must be passed with a grade of C or higher.

### Courses Taken Pass/No Credit

All courses that count toward the MS in Computer Science must be taken for a letter grade, with the exception of COMP 299, which must be taken on a Pass / No Credit basis.

### Graduate Independent Studies

Students who have an interest in a subject not offered as a regular course and who, by their overall performance at Pacific, have proven their ability to do independent work, may consider enrolling in a graduate independent study. The qualified student should initiate discussions with his/her advisor and with a professor who is knowledgeable in the subject. If both parties are in agreement, the student must complete the Individualized Study Form and submit it to the instructor and Office

of the Registrar prior to the last day to add (see University Academic Calendar). Students on academic probation are not permitted to enroll in independent study courses in any department of the University. The following School of Engineering and Computer Science policies apply:

- a. The course(s) may not be substituted for a regularly scheduled course unless approved by the department.
- b. If the course is to be used as an elective, approval by the student's advisor and the department chairperson is required.
- c. All courses must be taken for a letter grade; the pass/no credit option is not allowed for independent study courses.
- d. Each course may be taken for one (1), two (2), three (3), or four (4) units. The unit value for the course is established between the student and the professor responsible for the course. The student's advisor should be informed of this decision.

### Course Substitutions

A maximum of six units of approved advanced undergraduate courses (100 level) can count toward the MS in Computer Science.

## Admission Criteria for Master of Science in Cybersecurity

The following admissions requirements have been set for entry into the program:

- Bachelors degree
- Official university transcript(s) showing a 2.65/4.0 GPA on the last 60 units of undergraduate study
- Educational qualifications and/or work experience in:
  - Data Structures (equivalent to COMP 53)
- Two letters of recommendation

## Academic Policies for Master of Science in Cybersecurity

### Cybersecurity Prerequisite Requirement

All course prerequisites in the MS in Cybersecurity program must be passed with a grade of C or higher.

### Courses Taken Pass/No Credit

All courses that count toward the MS in Cybersecurity must be taken for a letter grade.

## Admission Criteria for Master of Science in Data Science

All applicants for the Master of Science in Data Science program must submit the following materials via the GradCAS online application system. A completed application includes:

- a. Online application via the GradCAS system (<https://gradcas.liaisoncas.org/apply/>)
- b. Two letters of recommendation
- c. Official transcripts. An official, course-by-course evaluation of any non-US transcripts with an overall U.S. GPA equivalent from one of the agencies accepted by the University (see full list here (<https://www.pacific.edu/admission/graduate-programs/international-applicants.html>))

- d. A 2.65/4.0 GPA on the last 60 units of undergraduate study
- e. For students whose first language is not English, Test of English as a Foreign Language (TOEFL) is required. The minimum score for admission is 550 (paper) or 213 (computer) and the minimum score for a teaching assistantship award is 575 (paper) or 231 (computer). Alternatively, we accept IELTS
- f. A personal statement of interest. The statement of interest allows applicants to demonstrate their motivation, skills, and abilities that will contribute to their academic success in our program. While there is no specific format required for this statement, applicants are advised to give particular consideration to:
- g. Academic credentials
- h. Experience in the foundational concepts of:
  - Statistics
  - Linear Algebra
  - Computer programming (any language, but Python and R are preferred)
  - Commitment and personal stamina to undertake fast paced, intensive academic program
  - Enthusiasm for this particular course of study

## Academic Policies for Master of Science in Data Science

### Data Science Prerequisite Requirement

All course prerequisites in the MS in Data Science program must be passed with a grade of C or higher.

### Courses Taken Pass/No Credit

All courses that count toward the MS in Data Science must be taken for a letter grade, with the exception of ANLT 283, which may be taken on a Pass / No Credit basis.

## Admission Criteria for Master of Science in Engineering

All applicants for the Master of Science in Engineering program must submit the following materials to the Research and Graduate Studies Office at the University of the Pacific. A completed application includes:

- a. The Graduate School application form
- b. Letters of recommendation
- c. Transcripts from the institution where the BS in engineering, computer science, or relevant degree was granted
- d. A personal statement on professional goals and objectives
- e. A 3.0/4.0 GPA on the last 60 units of undergraduate study
- f. For students whose first language is not English, Test of English as a Foreign Language (TOEFL) is required. The minimum score for admission is 550 (paper) or 213 (computer) and the minimum score for a teaching assistantship award is 575 (paper) or 231 (computer)

## Academic Policies for Master of Science in Engineering

### Engineering and Computer Science Prerequisite Requirement

All course prerequisites in the MS in Engineering program must be passed with a grade of C or higher.

### Courses Taken Pass/No Credit

All courses that count toward the MS in Engineering must be taken for a letter grade (except for thesis units).

### Graduate Independent Studies

Students who have an interest in a subject not offered as a regular course and who, by their overall performance at Pacific, have proven their ability to do independent work, may consider enrolling in a graduate independent study. The qualified student should initiate discussions with his/her advisor and with a professor who is knowledgeable in the subject. If both parties are in agreement, the student must complete the Individualized Study Form and submit it to the instructor and Office of the Registrar prior to the last day to add (see University Academic Calendar). Students on academic probation are not permitted to enroll in independent study courses in any department of the University. The following School of Engineering and Computer Science policies apply:

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- c. All courses must be taken for a letter grade; the pass/no credit option is not allowed for independent study courses.
- d. Each course may be taken for one (1), two (2), three (3), or four (4) units. The unit value for the course is established between the student and the professor responsible for the course. The student's advisor should be informed of this decision.

### Course Substitutions

A maximum of six units of approved advanced undergraduate courses (100 level) can count toward the MS in Engineering .