

# Admission Requirements

Students holding bachelor's degree in computer science are accepted as graduate students, provided they meet the general requirements stated below. Applicants NOT holding a degree in Computer Science are also accepted as graduate students, provided they meet the general requirements and successfully complete the leveling courses below.

- An undergraduate degree from an accredited higher education institution.
- A minimum GPA of 2.75 on a 4.0 scale.
- A minimum TOEFL score of 550 (paper-based test) or 80 (machine-based test) (for applicants whose native language is not English).

A student with a Bachelor of Science in Computer Science, with a GPA greater than 2.44 but less than 2.75 and/or GRE scored above 245 but less than 293, may first receive conditionally classified admission to the MS degree program. A conditionally classified student has one year to receive a minimum GRE score of 900 and a minimum GPA of 3.0 to change status to classified graduate student.

A student with a bachelor's degree in discipline other than Computer Science must possess a computer science background equivalent to the following CSUDH courses:

- **CSC 311:** Data Structures
- **CSC 321:** Programming Language Concepts
- **CSC 331:** Computer Organization
- **CSC 341:** Operating Systems
- **CSC 281:** Discrete Mathematics
- **CSC 371:** Finite Automata
- **Proficiency in a programming language (or CSC 123 –Computer Science II**

A student without this background must enroll in these leveling courses before being accepted as a regular student in the graduate Computer Science program. Successful completion in these courses means a grade of 'C' or better in each leveling course.

Students entering the master's program must maintain a grade of no less than 'B' in any course for their continuation in this program. The final decision on admission is made by the Computer Science Graduate Committee.



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## Admission Procedures

### Prospective graduate students must:

1. Apply to the University for Admissions (or readmission) with graduate standing, and official transcript of all previous college work following the procedures outlined in the Admissions section of the University Catalog.
2. Submit to the Computer Science Graduate Program Coordinator:
  - a) A second set of official transcripts.
  - b) A letter to the department describing interests, goals, and expectations in pursuing the master's degree in computer science.
  - c) Three letters of recommendations sent directly from individuals who can evaluate potential for graduate study.
  - d) Verification of minimum GRE General Test score of 293 (combined verbal and quantitative) before the student has completed 9 semester units.

**\*\*FINAL DECISION ON ADMISSION IS  
MADE BY THE COMPUTER SCIENCE  
DEPARTMENT GRADUATE COMMITTEE\*\***

## CALIFORNIA STATE UNIVERSITY DOMINGUEZ HILLS

# MASTER OF SCIENCE COMPUTER SCIENCE

## Program Description

The master's Program in Computer Science is a two-year program in which a student must complete the required core courses and additional concentrate and general computer science elective courses. The curriculum for the Master of Science in Computer Science requires 36 semester credit units, and offers both a thesis option (30 semester credit units' coursework and 6 semester units of a thesis) and a non-thesis option (33 semester credit units of courses and 3 semester credit units of a project). Students choose to obtain a degree in Computer Science with a specialization in Software Engineering, Distributed Systems and Networking, or Data Science (starting Fall 2025).

The academic program is expected to culminate in the master's thesis or project. During the first semester of the program, the student should choose a major advisor who will assist him or her in the choice of elective courses. The major advisor will chair the student advisory committee for the thesis/project. The additional members of the students' graduate advisor committee will need to be selected.

The graduate program can provide a strong background for future study in a doctoral program and also provides graduate training as preparation for professional applicants. Students with a master's degree in computer science are also prepared for a career in teaching and/or research.

Most graduate classes are scheduled to accommodate late afternoon and evening classes.

### Graduate Standing: **Conditionally Classified**

To qualify for admission with a graduate degree objective, students must meet the admission requirements for post-baccalaureate standing as well as any additional requirements of the program. Students who apply to a graduate degree program but do not satisfy all program requirements may be admitted conditionally classified status. Program coordinator will outline all conditions for attainment of classified status.

### Graduate Standing: **Classified**

Students applying for master's degree program will be admitted in classified status if they meet all program admission requirements. Classified standing as a graduate student is granted by the academic unit to which the student is applying. Classified standing is normally granted when all prerequisites have been satisfactorily completed for admission to a master's degree program. Students must be in classified standing to qualify for Advancement to Candidacy.

### **Advancement to Candidacy**

Advancement to candidacy recognizes that the student has demonstrated the ability to sustain a level of scholarly competency commensurate with successful completion of degree requirements. Upon advancement to candidacy, the student is clear for the final stages of the graduate program which, in addition to any remaining course work, will include the thesis or project.

The following are the requirements for Advancement to Candidacy:

1. A minimum of 15 resident units
2. Classified standing
3. An approved Program of Study
4. Successful completion of GVAR
5. A cumulative of 3.0 in all courses taken as a graduate student
6. No grade lower than a "B" in the degree program

Advancement to Candidacy must be certified on the appropriate form to the Graduate Dean by the department prior to the final semester, prior to enrolling in the thesis or project.

## **Degree Requirements (36 units)**

### Thesis Option

1. 30 semester units of graduate coursework.
  - a) Required graduate core courses (15 units)
  - b) Elective graduate courses (15 units)
2. Master's Thesis (6 units)

### Non-Thesis Option

1. 33 semester units of graduate coursework.
  - a) Required graduate core courses (15 units)
  - b) Elective graduate courses (18 units)
2. Master's Project (3 units)

Students may choose to obtain a degree specializing in either Software Engineering (SE) or in Distributed Systems and Networking (DSN) tracks.

#### **A. Core Courses (15 units)**

**CSC 500** – Research Methods (3)  
**CSC 501** – Design and Analysis of Algorithms (3)  
**CSC 521** – Fundamentals and Concepts of Programming Languages (3)  
**CSC 581** – Advanced Software Engineering (3)  
**CSC 584** – Software Project Planning (3)

#### **B. Concentration (12 units)**

##### **1. Software Engineering (SE) Track:**

**CSC 541** – Advanced Operating System (3)  
**CSC 546** – Human Computer Interaction and Interface Design (3)  
**CSC 582** – Object-Oriented Analysis and Design Methodology (3)  
**CSC 583** – Software Engineering Processes (3)  
**CSC 585** – Advanced Software Quality Assurance (3)

Concentration (12 units) Cont.

##### **2. Distributed System and Networking (DSN) Track:**

**CSC 531** – Advance Computer Architecture (3)  
**CSC 541** – Advanced Operation Systems (3)  
**CSC 551** – Data Communications and Computer Networks (3)  
**CSC 552** – Distributed Computing and Parallel Processing (3)  
**CSC 555** – Information Assurance and Network Security (3)

##### **C. Electives (3-18 units)**

**CSC 511** – Artificial Intelligence and Expert Systems (3)  
**CSC 531** – Advanced Computer Architectures (3)  
**CSC 541** – Advanced Operating Systems (3)  
**CSC 546** – Human Computer Interactions (3)  
**CSC 553** – Advanced Database Management Systems (3)  
**CSC 551** – Data Communications and Computer Networks (3)  
**CSC 552** – Distributed Computing and Parallel Processing (3)  
**CSC 555** – Information Assurance and Network Security (3)  
**CSC 561** – Advanced Computer Graphics (3)  
**CSC 564** – Numerical Analysis (3)  
**CSC 565** – Theory of Computation (3)  
**CSC 582** – Object-Oriented Analysis and Design Methodology (3)  
**CSC 583** – Software Engineering Processes (3)  
**CSC 585** – Advanced Software Quality Awareness (3)  
**CSC 594** – Independent Study (3)  
**CSC 595** – Special Topics in Computer Science (3)

##### **D. Capstone (3-6 units)**

##### **1. Thesis Option (6 units)**

**CSC 599** – Master's Thesis (6 units)

##### **2. Non-Thesis Option (3 units)**

**CSC 590** – Master's Project (3 units)