MSCS: Option in Computer Engineering

NEW GRADUATE STUDENTS

Conditional Admittance

Classified Admittance

Complete Prerequisite Course Worksheet

- Students must complete a minimum of 30 graduate and approved upper-division course units.
- At least 21 units must be at the graduate level of instruction.
- You must maintain an average GPA of 3.0 to remain in good standing.

Advancement to Candidacy

To Advance students must have:

- Completed all deficiencies with grades of "C" or better;
- Attained an overall grade point average (GPA) of 3.0 and be in Good Standing;
- Completed at least 12 units in the core requirement applicable to the degree with a GPA of at least 3.0 for the completed MSCS units;
- Have fulfilled the Graduation Writing Assessment Requirement (GWAR); and have their program of studies approved by the CECS department graduate advisor.

During the First Year Complete All§ Deficiencies:

- One year of OO programming
- CECS 301 Computer Logic Design II
- CECS 326 Operating Systems
- CECS 343 Intro. to Software
- CECS 346 Microproc. and Controllers I
- CECS 347 Microproc. and Controllers II
- CECS 360 Integrated Circuit Design Software
- CECS 440 Computer Architecture
- MATH 370A Applied Mathematics I

§ Entering students are limited to a maximum of 4 deficiencies.

NOTE: While every effort is made to assure the accuracy of this document, the official CSULB Catalog should also be consulted. Please contact the graduate advisor if you have any concerns.

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Five Courses (15 units) of Required ("Core") Courses Consisting of:

1. **CECS 460 System on Chip Design (3)** Prereq: CECS 360 with a grade of "C" or better.
2. **CECS 530 Advanced Computer Architecture I (3)** Prereq: CECS 341 or 440 with a grade of "C" or better.
3. *One course from the following:*
   - **CECS 531 Advanced Computer Architecture II (3)** Prereq: CECS 530 with a grade of "C" or better.
   - **CECS 546 Fault Tolerant Computing Systems (3)** Prereq: CECS 530 with a grade of "C" or better.
4. *One course from the following:*
   - **CECS 526 Advanced Operating Systems (3)** Prereq: CECS 228 and 326 all with a grade of "C" or better.
   - **CECS 528 Advanced Analysis of Algorithms (3)** Prereq: CECS 328, MATH 380 or EE 380 all with a grade of "C" or better.

5. *One course from the following list of MSCS Application Courses:*
   - **CECS 521** Database Architecture
   - **CECS 531** Advanced Computer Architecture II
   - **CECS 543** Advanced Software Engineering
   - **CECS 546** Fault Tolerant Computing Systems
   - **CECS 572** Advanced Computer Networking
   - **CECS 575** Object-Oriented Analysis & Design

➕ *15 Units for the Comprehensive Exam OR*
➕ *9 units for the Thesis Option OR*
➕ *12 units for the Project Option*
From the following list of electives:

CECS 408,	CECS 406,	CECS 419/519,
CECS 423,	CECS 424,	CECS 428,
CECS 429/529,	CECS 444,	CECS 445,
CECS 447,	CECS 448,	CECS 449,
CECS 451,	CECS 453,	CECS 455,
CECS 460,	CECS 461/561,	CECS 463,
CECS 470,	CECS 472,	CECS 474,
CECS 475,	CECS 476,	CECS 478/578,
CECS 491,	CECS 492,	CECS 521,
CECS 524,	CECS 526,	CECS 528,
CECS 530,	CECS 531,	CECS 532,
CECS543,	CECS544,	CECS 545,
CECS 546,	CECS 547	CECS 549,
CECS 550,	CECS 551,	CECS 552,
CECS 553,	CECS 570.	CECS 572,
CECS 574,	CECS 575,	CECS 590,
CECS 694,	CECS 697*†	

- Requires Advancement to Candidacy
† Requires consent of instructor
Note: Courses may not be double-counted.

Comprehensive Examination*

Thesis with an Oral Defense*†

Which requires a total of 6 units from the following (at least 3 units from CECS 698*†):

CECS 697*† Directed Research (1-3)

CECS 698*† Thesis or Industrial Project (2-6)

Project with an Oral Defense*†

Which requires a total of 3 units of
CECS 697*† Directed Research (1-3)

DEGREE AWARDED