

00-01

January 25, 2000

**Bachelor of Science in Computer Engineering (code 3-4013)**

This new program was recommended by the Academic Senate on February 4, 1999, approved by the President on March 23, 1999 and approved by the Chancellor on January 20, 2000.

The Department of Computer Engineering and Computer Science offers programs leading to a Bachelor of Science in Computer Engineering or a Bachelor of Science in Computer Science. The goal of both programs is to prepare graduates for a wide variety of computer-related careers by integrating the theoretical foundations of the discipline with practical applications. The degree in Computer Engineering focuses on computer hardware (design, construction, and operation of computer systems) while the Computer Science degree places more emphasis on computer software (programming). The high school student planning to enter either program is advised to pursue a strong program in science and mathematics.

**Bachelor of Science in Computer Engineering (code 3-4013) (130 units)**

The Bachelor of Science in Computer Engineering degree program has a two-part objective. The first is to provide students with a strong background in mathematics, physics, and engineering science. The curriculum includes a core of standard electrical engineering courses as well as courses in digital systems, computer organization, programming languages, and software, including operating systems, compiler theory and software engineering. The second objective is to provide students with the skills necessary to be effective contributors in a quality-oriented, customer-focused environment. Courses throughout the program, especially those in the junior and senior years, emphasize an open-ended, design-oriented approach to solving engineering problems. Teamwork, communication skills, and an interdisciplinary approach to problem solving are integrated into the senior, computer engineering design courses.

**Requirements**

Lower Division: CECS 174, 201, 228, 261, 271 or 281, 274; EE 211, 211L; MATH 122, 123, 224; PHYS 151, 152.

Upper Division: CECS 301, 325, 326, 346, 347, 360, 440, 443 or 444, 460A, 460B; EE 310, 331, 380 (or MATH 380); MATH 370A; plus nine units of approved electives to be selected as follows: six (6) units from CECS 406, 426, 443 or 444 (if not taken as required course), 451, 472, 475, 497, EE 386, ENGL 317; and three (3) units from CECS 328, 405, 421, 428, 448, 449, 470, 471, 476, 481.

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**EFFECTIVE: Spring 2000**

Code: 3-4013

College: 52

Career: UG

IPEDS (Major) ERSS: 09094

IPEDS (Degree) ERSD: 09094

The Computer Engineering Option (code 3-4010) is closed.