



BACHELOR OF SCIENCE Computer Engineering

BS CpE is a program that embodies the science and technology of design, development, implementation, maintenance and integration of software and hardware components in modern computing systems and computer-controlled equipment.” – CMO 87

The Bachelor of Science in Computer Engineering (BS CpE) program intends to initiate the transformative development of the local and national communities through the application, design and building of computer systems technology as sustainable solutions to regional and global problems.

Students will be provided with both theoretical and practical background in computer hardware, networking and software, along with the engineering analysis, design and implementation skills necessary to work in the different sub-fields



UNIVERSITY of SAN CARLOS
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CORE COURSES

- Chemistry for Engineers
- Chemistry for Engineers Laboratory
- Differential Calculus
- Integral Calculus
- Engineering Data Analysis
- Physics for Engineers
- Physics for Engineers Laboratory
- Electrical Circuits
- Differential Equations with CpE Applications
- Engineering Economics
- Technopreneurship
- Electronic Circuits
- Computer-Aided Drafting for CpE

The Program in Computer Engineering builds competencies for these jobs:

- Software Developers
- Hardware Developers
- Firmware Engineers
- Embedded Systems Developers
- Test Engineers
- Research and Development
- Computer Systems Analysts
- Web Developers
- Database Administrators
- Information Security Analysts
- Network and Computer System Administrators

PROFESSIONAL COURSES

- Computer Engineering as a Discipline
- Programming Logic and Design
- Discrete Mathematics
- Data Structures and Algorithms
- Object Oriented Programming
- Software Design
- Advance Mathematics for CpE
- Logic Circuits and Design
- Data and Digital Communications
- Computer Engineering Drafting and Design
- Introduction to HDL
- Feedback and Control Systems
- Fundamentals of Mixed Signals and Sensors Microprocessors
- Computer Networks and Security
- Operating Systems
- Methods of Research
- Numerical Methods
- Embedded Systems
- Computer Architecture and Organization
- Digital Signal Processing
- CpE Laws and Professional Practice
- Emerging Technologies in CpE
- Basic Occupational Health and Safety
- CpE Research
- CpEDesign1&2

ELECTIVE COURSES

- Server Administration
- Network Technologies
- Network Systems Security
- Software Development Strategies
- Web Development
- Mobile Applications Development
- Embedded Systems
- Microelectronics
- Information Engineering
- Technology Management
- Technical Product and Services Marketing
- Technopreneurial Operations Management

INTERNSHIP AND SEMINAR COURSES

- Seminars and Fieldtrips
- Computer Engineering Industry Internship

