BS IN COMPUTER SCIENCE AND ENGINEERING TECHNOLOGY

The computer science and engineering technology program provides hands-on curriculum with an in-depth understanding of computer hardware and software as they relate to computer design and applications. Students get a solid foundation in the principles of electronics, with an emphasis on installation, maintenance and troubleshooting of computer systems. They also learn about the use of software in engineering technology, which requires a knowledge of programming and computer operating systems.

Below is a sample plan of study. Consult your degree audit for your program requirements.

- BS in Computer Science and Engineering Technology
- BS in Computer Science and Engineering Technology - Cyber Security Concentration (p. 1)

BS in Computer Science and Engineering Technology

First Term		Hours
CSET 1100	Introduction to Computer Science and Engineering Technology	4
EET 2420	Electrical Instrumentation Laboratory	1
PHIL 1010	Introduction To Logic	3
ENGT 1000	Engineering Technology Orientation	1
ENGL 1110	College Composition I	3
Social Sciences Core		3
	Hours	**15**
Second Term		
CSET 1200	Object Oriented Programming and Data Structures	3
Communications Elective		3
PHYS 2070	General Physics I	4
EET 2210	Digital Logic Fundamentals	4
ENGL 2950	Technical Writing	3
	Hours	**17**
Third Term		
MATH 2450	Calculus For Engineering Technology I	4
PHYS 2080	General Physics II	4
CSET 2200	PC and Industrial Networks	4
CSET 2230	Assembly Language and Computer Architecture	4
	Hours	**16**
Fourth Term		
ENGT 3050	Fundamentals Of Electricity	4
MATH 2460	Calculus For Engineering Technology II	4
EET 2410	Mechatronics I	4
CSET 2520	Discrete Structures	3
Social Sciences Core		3
	Hours	**18**
Fifth Term		
ENGT 2000	Professional Development	1
ENGT 3010	Applied Statistics And Design Of Experiments	4
EET 3350	Embedded Systems Design	4
MATH 2890	Numerical Methods And Linear Algebra	3
CSET Technical Elective		3
	Hours	**15**
Sixth Term		
Natural Sciences Core		4
CSET 3150	Introduction to Algorithms	4
CSET 3300	Database-Driven Web Sites	4
	Hours	**12**
Seventh Term		
Professional Development Elective		3
CSET 3600	Software Engineering and Human Interfacing	4
CSET 4350	Operating Systems	3
CSET 4750	Computer Networks And Data Communication	4
Diversity of US		3
	Hours	**17**
Eighth Term		
Professional Development Elective		3
Arts/Humanities Core/Non-US Diversity		3
CSET 4250	Applied Programming Languages	3
ENGT 4050	Senior Technology Capstone	3
CSET 4850	Computer and Network Security	4
	Hours	**16**
	Total Hours	**126**

BS in Computer Science and Engineering Technology - Cyber Security Concentration

Students in the BS Computer Science and Engineering Technology – Cyber Security Concentration must take cyber security related projects in the following classes: CSET 3300, CSET 4850, and ENGT 4050. Please, consult the CSET Program Director for additional information.

Other than that, the plan of study is the same as that for EN-CSET-BCT: Computer Science and Engineering Technology, BS

First Term		Hours
CSET 1100	Introduction to Computer Science and Engineering Technology	4
EET 2420	Electrical Instrumentation Laboratory	1
PHIL 1010	Introduction To Logic	3
ENGT 1000	Engineering Technology Orientation	1
ENGL 1110	College Composition I	3
Social Sciences Core		3

Second Term		
CSET 1200	Object Oriented Programming and Data Structures	3
PHYS 2070	General Physics I	4
Communications Elective		3
EET 2210	Digital Logic Fundamentals	4
ENGL 2950	Technical Writing	3
	Hours	**17**
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CSET 2520	Discrete Structures	3
EET 2410	Mechatronics I	4
Social Sciences Core		3
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ENGT 3010	Applied Statistics And Design Of Experiments	4
EET 3350	Embedded Systems Design	4
MATH 2890	Numerical Methods And Linear Algebra	3
CSET Technical Elective		3
	Hours	**15**
Sixth Term		
Natural Sciences Core		4
CSET 3150	Introduction to Algorithms	4
CSET 3300	Database-Driven Web Sites	4
	Hours	**12**
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CSET 4350	Operating Systems	3
CSET 4750	Computer Networks And Data Communication	4
Diversity of US		3
	Hours	**17**
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Professional Development Elective		3
Arts/Humanities Core/Non-US Diversity		3
CSET 4850	Computer and Network Security	4
CSET 4250	Applied Programming Languages	3
ENGT 4050	Senior Technology Capstone	3
	Hours	**16**
	Total Hours	**126**

- The program has the following student learning outcomes: PLO 1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly defined engineering problems appropriate to the discipline.
- PLO 2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline
- PLO 3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature.
- PLO 4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and
- PLO 5. an ability to function effectively as a member as well as a leader on technical teams. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- PLO 6. an ability to apply computer science theory and software development fundamentals to produce computing-based solutions (CAC CS Program Criteria).

The program educational objectives of the Computer Science and Engineering Technology program will result in graduates that will:

a. Assume leadership roles in business and industry and make technical contributions to design, development, and manufacturing in their practice of computer science and engineering technology, computer networks and computer information systems.
b. Have a sufficient depth of understanding in computer science and the skills, confidence, professionalism, and experience necessary for successful careers in computer science and related fields.
c. Demonstrate professionalism and a sense of societal and ethical responsibility in all their endeavors.
d. Engage in professional development or post-graduate education to pursue flexible career paths adapting to future technological changes.