



Associate in Engineering in SOFTWARE ENGINEERING

The curriculum in the Associate Degree in Engineering (AEng) in Software Engineering Technology is designed for those who intend to launch a career in the testing, installation, and maintenance of computer software modules and systems. Coursework in the program is practice-oriented and prepares students to work in a variety of computer-intensive environments that involve engineering support: technical organizations, small or large businesses, manufacturing companies, and data-directed services. The breadth of training in hardware, software, troubleshooting equipment, and other computer tools will enable the graduate to work in a variety of roles in such environments as software technician, computer systems technician, data applications or computer technician, or as a test and integration assistant. The graduate of this curriculum will be a software engineering technician versed in mathematics, physics, computer science, software development, and business fundamentals. Failure to maintain an overall GPA of at least a 2.00 in all coursework is sufficient cause for being dropped from the program.

GENERAL EDUCATION (34)	COMPLETED	Planned Timeline (By Semester)
<u>Area I: Communications (9)</u>		
ENG 111 English Composition I (3) <i>Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation</i>	_____	_____
ENG 116 Technical Writing (3) <i>Pre-requisite: ENG 111</i>	_____	_____
SPCH 130 Public Speaking (3) <i>Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation</i>	_____	_____
<u>Mathematics (11)</u>		
MATH 145 Introduction to Probability & Statistics (3) <i>Pre-requisite: MATH 130 or adequate score on the Course Placement Evaluation</i>	_____	_____
MATH 162 Calculus I (4) <i>Pre-requisites: MATH 150 and MATH 155 or MATH 160</i>	_____	_____
MATH 163 Calculus II (4) <i>Pre-requisite: MATH 162</i>	_____	_____
<u>Laboratory Science (4)</u>		
PHYS 215/L Engineering Physics I with lab (4) <i>Pre-requisite: MATH 162; Co-requisite: PHYS 215L</i>	_____	_____
PHYS 216/L Engineering Physics II with lab (4) <i>Pre-requisite: PHYS 215; Co-requisite: PHYS 216L</i>	_____	_____
<u>Social/Behavioral Sciences (3)</u>		
ECON 201 Microeconomics (3) <i>Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation</i>	_____	_____
<u>Humanities and Fine Arts (3)</u>		
PHIL 220 Ethics (3) <i>Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation</i>	_____	_____
HEALTH, PHYSICAL EDUCATION & RECREATION (1)		
Electives (1) _____	_____	_____
PROGRAM REQUIREMENTS (30)		
<u>Business (3)</u>		
BA Lower division elective (3) _____	_____	_____
<u>Computer Science (6)</u>		
CS 201 Mathematical Foundations of Computer Science (3) (Fall) <i>Pre-requisite: EECE 152L</i>	_____	_____
CS 241L Data Organization (3) (Fall) <i>Pre-requisite: EECE 152L</i>	_____	_____

Electrical, Electronic, and Computer Engineering (21)

EECE 105L	Microcomputer Systems (4)	_____	_____
<i>Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation</i>			
EECE 132	Computer Networks (3)	_____	_____
<i>Pre-requisite: EECE 152L</i>			
EECE 152L	Computer Programming I (4)	_____	_____
<i>Pre-requisite: CS 102</i>			
EECE 238/L	Computer Logic Design (4)	_____	_____
<i>Pre-requisites: MATH 163 and PHYS 216/L</i>			
EECE 231	Intermediate Programming I (3)	_____	_____
<i>Pre-requisite: EECE 152L</i>			
Elective (3)	Choose from : EECE or IT lower division courses	_____	_____
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TOTAL CREDITS		65	

SUGGESTED SEQUENCE OF COURSES

FIRST SEMESTER (14 crs)

ENG 111	English Composition I (3)
MATH 162	Calculus I (4)
MATH 145	Introduction to Probability and Statistics (3)
ECON 201	Microeconomics (3)
HPER	Elective (1)

SECOND SEMESTER (19 crs)

ENG 116	Technical Writing (3)
MATH 162	Calculus II (4)
PHYS 215/L	Engineering Physics I with Lab (4)
EECE 105L	Microcomputer Systems I (4)
EECE 152L	Computer Programming I (4)

THIRD SEMESTER (16 crs)

PHYS 216/L	Engineering Physics II with Lab (4)
EECE 132	Computer Networks I (3)
EECE 231	Intermediate Programming (3)
CS 241	Data Organization (3)
CS 201	Math Foundations of CS (3)

FOURTH SEMESTER (16 crs)

SPCH 130	Public Speaking (3)
EECE 238L	Computer Logic Design (4)
PHIL 220	Ethics (3)
BA	Elective (3)
EECE/IT/CS	Elective in 2XX (3)

Educational Planning Form (Semester)

Fall Semester	Spring Semester	Summer
Total Units	Total Units	Total Units
Fall Semester	Spring Semester	Summer
Total Units	Total Units	Total Units
Fall Semester	Spring Semester	Summer
Total Units	Total Units	Total Units