



## 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)
<b><u>Area I: Communications (9)</u></b>		
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>	_____	_____
<b><u>Mathematics (11)</u></b>		
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>	_____	_____
<b><u>Laboratory Science (4)</u></b>		
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>	_____	_____
<b><u>Social/Behavioral Sciences (3)</u></b>		
ECON 201 Microeconomics (3) <i>Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation</i>	_____	_____
<b><u>Humanities and Fine Arts (3)</u></b>		
PHIL 220 Ethics (3) <i>Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation</i>	_____	_____
<b>HEALTH, PHYSICAL EDUCATION &amp; RECREATION (1)</b>		
Electives (1) _____	_____	_____
<b>PROGRAM REQUIREMENTS (30)</b>		
<b><u>Business (3)</u></b>		
BA Lower division elective (3) _____	_____	_____
<b><u>Computer Science (6)</u></b>		
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)  
*Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation*

EECE 132 Computer Networks I (3)  
*Pre-requisite: EECE 152L*

EECE 152L Computer Programming I (4)

EECE 238/L Computer Logic Design (4)  
*Pre-requisites: MATH 163 and PHYS 216/L*

EECE 231 Intermediate Programming I (3)  
*Pre-requisite: EECE 152L*

Elective (3) Choose from : EECE or IT lower division courses

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

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)

<b>Fall Semester</b>	<b>Spring Semester</b>	<b>Summer</b>
<b>Total Units</b>	<b>Total Units</b>	<b>Total Units</b>
<b>Fall Semester</b>	<b>Spring Semester</b>	<b>Summer</b>
<b>Total Units</b>	<b>Total Units</b>	<b>Total Units</b>
<b>Fall Semester</b>	<b>Spring Semester</b>	<b>Summer</b>
<b>Total Units</b>	<b>Total Units</b>	<b>Total Units</b>