



## 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 (30)

	COMPLETED	Planned Timeline (By Semester)
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#### Area 1: Communications (9)

- |   |       |       |
|---|-------|-------|
| ENG 111 English Composition I (3)<br><i>Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation</i> | _____ | _____ |
| ENG 116 Technical Writing (3)<br><i>Pre-requisite: ENG 111</i>  | _____ | _____ |
| SPCH 130 Public Speaking (3)<br><i>Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation</i>      | _____ | _____ |

#### Area 2: Mathematics (3)

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|--|-------|-------|
| MATH 145 Introduction to Probability & Statistics (3)<br><i>Pre-requisite: MATH 130 or adequate score on the Course Placement Evaluation</i> | _____ | _____ |
|--|-------|-------|

#### Area 3: Laboratory Science (9)

- |  |       |       |
|--|-------|-------|
| ENGR 215 Physics for Engineers I (2)<br><i>Pre-requisite: ENGR 121L</i>    | _____ | _____ |
| ENGR 217L Physics for Engineers III (3)<br><i>Pre-requisite: ENGR 122L</i> | _____ | _____ |

Elective Laboratory Science (4)

#### You must select a course from the following list:

- |   |       |       |
|---|-------|-------|
| ASTR 110/L Introduction to Astronomy with Lab (4)           | _____ | _____ |
| PHYS 122/L Applied Physics II with lab (4)                  | _____ | _____ |
| PHYS 216/L Engineering Physics II with lab (4)              | _____ | _____ |
| CHEM 121/L General Chemistry I with Lab (4)                 | _____ | _____ |
| ES 112/L Introduction to Environmental Science with Lab (4) | _____ | _____ |
| BIOL 110/L Current Topics in Biology with Lab (4)           | _____ | _____ |
| GEOL 110/L Physical Geology with Lab (4)                    | _____ | _____ |

#### Area 4: Social/Behavioral Sciences (3)

- |   |       |       |
|---|-------|-------|
| ECON 201 Microeconomics (3)<br><i>Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation</i> | _____ | _____ |
|---|-------|-------|

#### Area 5: Humanities and Fine Arts (3)

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|--|-------|-------|
| Elective (3)<br>You must select courses from the approved list in the Catalog for GenEd. | _____ | _____ |
|--|-------|-------|

#### Area 6: First Year Experience (3)

- |  |       |       |
|--|-------|-------|
| FYE 101 Freshman Year Experience (3)<br><i>Pre-requisite: None</i> | _____ | _____ |
|--|-------|-------|

## SUPPORT COURSES (4)

ENGR 121L Introductory Math for Engineering Applications I (2) \_\_\_\_\_  
*Pre-requisite: MATH 150 or adequate score on the Course Placement Evaluation*  
ENGR 122L Introductory Math for Engineering Applications II (2) \_\_\_\_\_  
*Pre-requisite: ENGR 121L*

## PROGRAM REQUIREMENTS (26)

### Computer Science (6)

CS 201 Mathematical Foundations of Computer Science (3) \_\_\_\_\_  
*Pre-requisite: EECE 152L*  
IT 250 Introduction to Databases (3) \_\_\_\_\_  
*Pre-requisite: EECE 152L*

### Electrical, Electronic and Computer Engineering (18)

EECE 105L Microcomputer Systems (3) \_\_\_\_\_  
*Pre-requisite: None*  
EECE 132 Computer Networks I (3) \_\_\_\_\_  
*Pre-requisite: None*  
EECE 152L Computer Programming I (3) \_\_\_\_\_  
*Pre-requisite: None*  
EECE 231L Intermediate Programming (3) \_\_\_\_\_  
*Pre-requisite: EECE 152L*  
CS/EECE/IT Electives (6) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Support Technologies (2)

ENGR 110 Introduction to Engineering (2) \_\_\_\_\_  
*Pre-requisite: None*

**TOTAL CREDITS 60**

## SUGGESTED SEQUENCE OF COURSES

### First Semester (16 cr)

FYE 101 Freshman Year Experience (3)  
ENGR 110L Introduction to Engineering (2)  
ENGR 121L Introductory Math for Engineering Applications I (2) (first 8 weeks)  
EECE 152L Computer Programming I (3)  
ENGR 215 Physics for Engineers I (2) (second 8 weeks)  
Elective Laboratory Science (4)

### Second Semester (14 cr)

ENG 111 English Composition I (3)  
EECE 132 Computer Networks I (3)  
ENGR 122L Introductory Math for Engineering Applications II (2)  
CS 201 Mathematical Foundations of Computer Science (3)  
EECE/CS/IT Elective (3)

### Third Semester (15 cr)

EECE 105L Microcomputer Systems (3)  
ENG 116 Technical Writing (3)  
ENGR 217L Physics for Engineers III (3)  
MATH 145 Introduction to Probability and Statistics (3)  
IT 250 Introduction to Databases (3)

### Fourth Semester (15 cr)

SPCH 130 Public Speaking (3)  
ECON 201 Microeconomics (3)  
EECE 231 Intermediate Programming (3)

CS/EECE/IT Elective (3)  
HFA Elective (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>

**Advisor's Signature** \_\_\_\_\_

**Student Signature** \_\_\_\_\_