



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 (35)

COMPLETED

**Planned Timeline
(By Semester)**

Area I: Communications (9)

ENG 111 English Composition I (3)

Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation

ENG 116 Technical Writing (3)

Pre-requisite: ENG 111

SPCH 130 Public Speaking (3)

Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation

Mathematics (11)

MATH 145 Introduction to Probability & Statistics (3)

Pre-requisite: MATH 130 or adequate score on the Course Placement Evaluation

MATH 162E Calculus I (4)

Pre-requisites: MATH 155, ENGR 120

MATH 163E Calculus II (4)

Pre-requisite: MATH 162E

Laboratory Science (4)

PHYS 215/L Engineering Physics I with lab (4)

Pre-requisite: ENGR 120 OR MATH 162; Co-requisite: PHYS 215L

PHYS 216/L Engineering Physics II with lab (4)

Pre-requisite: PHYS 215; Co-requisite: PHYS 216L

Social/Behavioral Sciences (3)

ECON 201 Microeconomics (3)

Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation

Humanities and Fine Arts (3)

HUM 100 First year Experience: History and Culture of Northern New Mexico (3)

Pre-requisite: ENG 108 or adequate score on the Course Placement Evaluation

Area VI Library Technology, Library Research Skills (1 crs)

LT 101 Library Research Skills (1)

Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation

PROGRAM REQUIREMENTS (31)

Business (3)

BA Lower division elective (3)

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 (16)

EECE 105L Microcomputer Systems (3)
Pre-requisite: None

EECE 132 Computer Networks I (3)
Pre-requisite: None

EECE 152L Computer Programming I (4)
Pre-requisite: None

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

EECE 251L Advanced Programming I (3)
Pre-requisite: EECE 231L

Support Technologies (6)

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

ENGR 120 Introductory Math for Engineering Applications (4)
Pre-requisites: MATH 130

TOTAL CREDITS 66

SUGGESTED SEQUENCE OF COURSES

First Semester (17 cr)

- ENGR 110L Introduction to Engineering (2)
- ENGR 120L Introductory Math for Engineering Applications (4)
- EECE 152L Computer Programming I (4)
- EECE 105L Microcomputer Systems I (3)
- LT 101 Library Research Skills (1)
- HUM 100 FYE: History and Culture of Northern New Mexico (3)

Second Semester (16 cr)

- EECE 132 Computer Networks I (3)
- MATH 162E Calculus I (4)
- ECON 201 Microeconomics (3)
- EECE 231L Intermediate Programming (3)
- ENG 111 English Composition I (3)

Third Semester (17 cr)

- PHYS 215/LEngineering Physics I with Lab (4)
- IT 250 Introduction to Databases (3)
- CS 201 Math Foundations of CS (3)
- MATH 163E Calculus II (4)
- EECE 251L Advanced Programming (3)

Fourth Semester (16 cr)

- SPCH 130 Public Speaking (3)
- BA Elective (3)
- MATH 145 Introduction to Probability and Statistics (3)
- PHYS 216/LEngineering Physics II with Lab (4)
- ENG 116 Technical Writing (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