



Northern

Associate in Engineering in INFORMATION ENGINEERING TECHNOLOGY

The curriculum for the Associate in Engineering (AEng) in Information Technology is designed for those engineering students who intend to launch a career in the design, installation, maintenance, and repair of computer networks used for critical data entry, transfer, retrieval, and management. Coursework in the program is practice-oriented and prepares students to work in a variety of computer-intensive environments, such as technical organizations, small or large businesses, product design or 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 network designer, network support and administrator, project manager, data applications or computer communications engineer, test and integration manager or technologist in business applications. The graduate of this curriculum will be a computer network specialist, but broadly versed in mathematics, physics, computer science, and business fundamentals. Failure to maintain an overall GPA of at least a 2.0 in all coursework is sufficient cause for being dropped from the program.

GENERAL EDUCATION (34)	COMPLETED	Planned Timeline (By Semester)
<u>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 (8)</u>		
PHYS 215/L Engineering Physics I with lab (4) <i>Pre-requisite: MATH 162</i>	_____	_____
PHYS 216/L Engineering Physics II with lab (4) <i>Pre-requisite: PHYS 215/L</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 (31)		
<u>Business (3)</u>		
BA Lower division elective (3) _____	_____	_____
<u>Computer Science (3)</u>		
CS 241L Data Organization (3) (Fall) <i>Pre-requisite: EECE 152L</i>	_____	_____

Electrical, Electronic and Computer Engineering (22)

EECE 105L	Microcomputer Systems (4)	_____	_____
<i>Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation</i>			
EECE 132	Computer Networks I (3)	_____	_____
<i>Pre-requisite: EECE 152L</i>			
EECE 152L	Computer Programming I (4)	_____	_____
EECE 220	Network and Server Software (4)	_____	_____
<i>Pre-requisite: IT 130</i>			
EECE 231	Intermediate Programming I (3)	_____	_____
<i>Pre-requisite: EECE 152L</i>			
EECE 238L	Computer Logic Design (4)	_____	_____
<i>Pre-requisite: MATH 130 and PHYS 216L</i>			

Information Technology (3)

IT 210	IT Systems (3)	_____	_____
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TOTAL CREDITS 66

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)
PHIL 220	Ethics(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 105/L	Microcomputer Systems I (4)
EECE 152/L	Computer Programming I (4)

THIRD SEMESTER (16 crs)

SPCH 130	Public Speaking (3)
PHYS 216/L	Engineering Physics II with Lab (4)
EECE 231	Intermediate Programming I (3)
CS 241	Data Organization (3)
EECE 132	Computer Networks I (3)

FOURTH SEMESTER (17 crs)

ECON 201	Microeconomics (3)
EECE 238/L	Computer Logic Design (4)
ENGR/BA	Elective (3)
EECE 220	Network and Server Software (4)
IT 210	IT Systems (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

Advisor's Signature _____

Student Signature _____