



ASSOCIATE IN ENGINEERING IN INFORMATION ENGINEERING TECHNOLOGY/2014-2016

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 occupations 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 could be a computer network specialist, and will be broadly versed in mathematics, physics, computer science, and business fundamentals.

The program objectives are the following:

1. Graduates will be situated in growing entry-level careers involving support of Information Technology Systems.
2. Graduates will have demonstrated involvement in high-level technical roles.

Completion of this program should result in the following student outcomes:

1. An ability to apply knowledge of mathematics, science, and engineering
2. An ability to function on multidisciplinary teams
3. An ability to communicate effectively
4. Broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
5. A knowledge of contemporary issues
6. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

GENERAL EDUCATION (35 CR)

Area I. Communications (9 cr)

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|------|-----|---------------------------|
| ENG | 111 | English Composition I (3) |
| ENG | 116 | Technical Writing (3) |
| SPCH | 130 | Public Speaking (3) |

Area II. Mathematics (11 cr)

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|------|------|--|
| MATH | 145 | Introduction to Probability & Statistics (3) |
| MATH | 162E | Calculus I (4) |
| MATH | 163E | Calculus II (4) |

Area III. Laboratory Sciences (8 cr)

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|------|-------|-------------------------------------|
| PHYS | 215/L | Engineering Physics I with lab (4) |
| PHYS | 216/L | Engineering Physics II with lab (4) |

Area IV. Social/Behavioral Sciences (3 cr)

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| ECON | 201 | Microeconomics (3) |
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Area V. Humanities and Fine Arts (3 cr)

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| HUM | 100 | FYE: History and Culture of Northern New Mexico (3) |
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Area VI. Library Technology, Library Research Skills (1 cr)

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| LT | 101 | Library Research Skills (1) |
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PROGRAM REQUIREMENTS (32 CR)

Business (3 cr)

BA Lower-Division Elective (3)

Electrical, Electronic, and Computer Engineering (20 cr)

EECE 105L Microcomputer Systems (3)
EECE 132 Computer Networks I (3)
EECE 152L Computer Programming I (4)
EECE 231 Intermediate Programming I (3)
EECE 238L Computer Logic Design (4)
EECE 251L Advanced Programming I (3)

Information Technology (3 cr)

IT 250 Introduction to Databases (3)

Support Technologies (6 cr)

ENGR 110L Introduction to Engineering (2)
ENGR 120L Introductory Math for Engineering Applications (4)

TOTAL CREDITS: 67

SUGGESTED SEQUENCE OF COURSES

First Semester (17 cr)

LT 101 Library Research Skills (1)
HUM 100

First Year Exp: History and Culture of Northern New Mexico (3)

EECE 152/L Computer Programming I (4)
EECE 132 Computer Networks I (3)
ENGR 110L Introduction to Engineering (2)
ENGR 120L Introductory Math for Engineering Applications (4)

Second Semester (17 cr)

ENG 111 English Composition I (3)
MATH 162E Calculus I (4)
EECE 238L Computer Logic Design (4)
EECE 231L Intermediate Programming (3)
EECE 105L Microcomputer Systems (3)

Third Semester (17 cr)

ENG 116 Technical Writing (3)
EECE 251L Advanced Programming (3)
MATH 163E Calculus II (4)
PHYS 215/L Engineering Physics I with Lab (4)
ECON 201 Microeconomics (3)

Fourth Semester (16 cr)

PHYS 216/L Engineering Physics II with Lab (4)
BA Elective (3)
MATH 145 Introduction to Probability and Statistics (3)
SPCH 130 Public Speaking (3)
IT 250 Introduction to Databases (3)