
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 graduates of this curriculum could be a computer network specialist, but 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 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 (34 CRS)

Area I: Communications (9)

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

Area II: Mathematics (11)

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

Area III: Laboratory Science (8)

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

Area IV: Social/Behavioral Sciences (3)

- ECON 201 Microeconomics (3)

Area V: Humanities and Fine Arts (3)

- PHIL 220 Ethics (3)

Health, Physical Education & Recreation (1 cr)

Electives (1)

PROGRAM REQUIREMENTS (31 CRS)

Business (3)

BA Lower-Division Elective (3)

Electrical, Electronic, and Computer Engineering (18)

EECE 105L Microcomputer Systems (4)

EECE 132 Computer Networks I (3)

EECE 152L Computer Programming I (4)

EECE 231 Intermediate Programming I (3)

EECE 238/L Computer Logic Design (4)

Information Technology (6)

IT 210 IT Systems (3)

IT 250 Introduction to Databases (3)

Support Technologies (4)

ENGR 110 Introduction to Engineering Technology (4)

TOTAL CREDITS 66

SUGGESTED SEQUENCE OF COURSES

First semester (15 cr)

ENG 111 English Composition I (3)

MATH 162 Calculus I (4)

HPER Elective (1)

EECE 132 Computer Networks I (3)

ENGR 110 Introduction to Engineering Technology (4)

Second Semester (19 cr)

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)

PHIL 220 Ethics(3)

Third Semester (16 cr)

SPCH 130 Public Speaking (3)

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

EECE 231 Intermediate Programming I (3)

IT 250 Introduction to Databases (3)

ENG 116 Technical Writing (3)

Fourth Semester (16 crs)

ECON 201 Microeconomics (3)

EECE 238/L Computer Logic Design (4)

BA Elective (3)

IT 210 IT Systems (3)

MATH 145 Introduction to Probability and Statistics (3)