

# DEPARTMENT OF ENGINEERING TECHNOLOGY

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An education in engineering technology emphasizes problem solving, technical skills and extensive laboratory experience to integrate theory and practice. The curriculum includes a solid foundation in applied sciences and mathematics.

## Degrees Offered

- BS in Computer Science and Engineering Technology (<https://catalog.utoledo.edu/undergraduate/engineering/engineering-technology/bs-computer-science-engineering-technology/>)
- BS in Construction Engineering Technology (<https://catalog.utoledo.edu/undergraduate/engineering/engineering-technology/bs-construction-engineering-technology/>)
- BS in Cyber Security (<https://catalog.utoledo.edu/undergraduate/engineering/engineering-technology/bs-cyber-security/>)
- BS in Electrical Engineering Technology (<https://catalog.utoledo.edu/undergraduate/engineering/engineering-technology/bs-electrical-engineering-technology/>)
- BS in Information Technology (<https://catalog.utoledo.edu/undergraduate/engineering/engineering-technology/bs-information-technology/>)
- BS in Mechanical Engineering Technology (<https://catalog.utoledo.edu/undergraduate/engineering/engineering-technology/bs-mechanical-engineering-technology/>)
- Minor in Cyber Security (<https://catalog.utoledo.edu/undergraduate/engineering/engineering-technology/minor-cyber-security/>)
- Minor in Software Engineering (<https://catalog.utoledo.edu/undergraduate/engineering/engineering-technology/minor-software-engineering/>)

### ENGT 1000 Engineering Technology Orientation

[1 credit hour]

Overview of careers in engineering technology, information about each program in Engineering Technology, and skills required for success in technological fields, such as computer skills.

**Term Offered:** Spring, Fall

### ENGT 2000 Professional Development

[1 credit hour]

An introduction to the performance expectations of the engineering profession. Topics covered include resume writing, public speaking, interviewing skills, ethics, social responsibilities and the value of continuing education and professional registration.

**Prerequisites:** ENGT 1000 with a minimum grade of D-

**Term Offered:** Spring, Fall

### ENGT 2500 Technical Project Management

[3 credit hours]

General methodology of managing a technical project from concept to operational use. Emphasis is on the functions and responsibilities of the project manager related to maintaining project control and team management.

**Term Offered:** Spring, Fall

### ENGT 3010 Applied Statistics And Design Of Experiments

[4 credit hours]

Introduction to probability, statistical inference and design of experiments. Topics include confidence intervals, tests of hypothesis, regression, analysis of variance, factorial experimental designs and propagation of experimental errors.

**Prerequisites:** MATH 2460 with a minimum grade of C- or MATH 1860 with a minimum grade of D- or MATH 1730 with a minimum grade of C-

**Term Offered:** Spring, Summer, Fall

### ENGT 3020 Applied Engineering Mathematics

[3 credit hours]

Introduction to partial derivatives, series expansions, complex variables, differential equations and Laplace transform analysis. Application of computers for numerical solution techniques.

**Prerequisites:** (MATH 2460 with a minimum grade of C- or MATH 1860 with a minimum grade of C-) and ENGL 1110 with a minimum grade of D-

**Term Offered:** Spring, Summer, Fall

### ENGT 3050 Fundamentals Of Electricity

[0-4 credit hours]

An introduction to basic analytical techniques for resistive and reactive DC and AC electric circuits, and an introduction to electronic devices, including diodes and transistors.

**Prerequisites:** MATH 1330 with a minimum grade of D- or MATH 1730 with a minimum grade of C-

**Term Offered:** Spring, Summer, Fall

### ENGT 3600 Engineering Economics

[3 credit hours]

Fundamentals of analysis of engineering projects and capital investment decisions. Review of break-even analyses, rate of return, cost benefit ratios and tax and inflation implications will be performed.

**Term Offered:** Spring, Fall

**ENGT 3940 Co-Op Experience**

[1 credit hour]

Approved co-op work experience. Course may be repeated.

**Prerequisites:** ENGT 2000 with a minimum grade of D-

**Term Offered:** Spring, Summer, Fall

**ENGT 3950 Co-op Experience**

[1 credit hour]

Approved co-op work experience beyond third required co-op experience.

Course may be repeated.

**Prerequisites:** ENGT 3940 with a minimum grade of D-

**Term Offered:** Spring, Summer, Fall

**ENGT 4050 Senior Technology Capstone**

[3 credit hours]

A comprehensive problem in engineering technology is assigned to a group of students who work together as a team to present a solution in a formal written and oral report.

**Term Offered:** Spring, Fall

**ENGT 4900 Engineering Review For Professional Certification**

[3 credit hours]

A review and application of general engineering principles and procedures in preparation for the Fundamentals of Engineering (FE) exam. Offered for students preparing to take the exam and for those considering it.

**ENGT 4980 Special Topics In Engineering Technology**

[1-4 credit hours]

Selected topics in engineering technology with emphasis on intensive investigation of recent literature in areas of special interest.

**Term Offered:** Spring, Summer, Fall