

# Engineering Technology

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## Earning a Bachelor of Science in Engineering Technology from UW Green Bay

**\*\*\*The Engineering Technology courses are being offered at the UWGB campus in 2014-15. These majors can be declared starting Fall 2015. For more information about programs please contact Dr. Patricia Terry, Program Director for more information at [terryp@uwgb.edu](mailto:terryp@uwgb.edu) or (920) 465-2749**

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### Bachelor of Science — Electrical Engineering Technology

Prepares students for a career as an electrical engineering technologist with the technical and managerial skills necessary to enter careers in the design, application, installation, manufacturing, operation and maintenance of electrical/electronic systems. Students specialize in product improvement, manufacturing, construction and operational engineering functions.

### Bachelor of Science — Environmental Engineering Technology

Responds to northeastern Wisconsin manufacturers' and municipalities' workforce needs as well as addresses 2010–2020 Bureau of Labor Statistics projections estimating a 14 percent increase in environmental engineering technology positions. Graduates are prepared to work in a number of industries both in and outside of manufacturing, such as in industrial waste treatment, water and wastewater management, agribusiness, environmental consulting, ecological evaluations and biotechnology sectors.

### Bachelor of Science — Mechanical Engineering Technology

Provides students with instruction and hands-on experience to develop competencies in applied mechanical engineering and analytical and critical problem-solving skills. Graduates and industry benefit through a more knowledgeable and flexible workforce that will fill positions in regional industries, manufacturing and engineering service firms.

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## Engineering Technology vs Engineering

Engineering and engineering technology are separate, but closely related professional areas. In general, the work of engineering technologists focuses on applied and practical applications, while the work of engineers emphasizes theoretical aspects of mathematical, scientific, and engineering principles. Technologists often work with engineers by applying basic engineering principles and technical skills. To prepare students for careers, engineering programs focus more on theory and conceptual design, while engineering technology programs focus on application and implementation. Engineering technology programs usually require fewer mathematics courses and more hands-on laboratory and applications based experiences

- Electrical Engineering Technology (<http://catalog.uwgb.edu/archive/2014-2015/undergraduate/programs/engineeringtechnology/electricalmajor>)
- Environmental Engineering Technology (<http://catalog.uwgb.edu/archive/2014-2015/undergraduate/programs/engineeringtechnology/environmentalmajor>)
- Mechanical Engineering Technology (<http://catalog.uwgb.edu/archive/2014-2015/undergraduate/programs/engineeringtechnology/mechanicalmajor>)

## Courses

### ET 283A. Fundamentals of Engineering Technology. 2 Credits.

This course is designed to equip engineering technology students with the necessary tools and background information to prepare them to be a successful student as well as a successful practicing engineer technologist. Topics covered in this course include ethics, project management, team work, working with data, creating presentations, engineering design, and a thorough understanding of the engineering technology profession.

### ET 483A. Finite Element Analysis. 3 Credits.

This course introduces the finite element analysis (FEA) method and applications to stress analysis and structural mechanics. Topics include FEA in 1, 2, and 3 D systems, optimization using FEA, incorporation of failure criteria and other constraints, and interpretation of FEA results.

P: none; REC: ET 207, ET 220, and Math 203.

### ET 483B. Fluids II. 2 Credits.

This course covers the theory of fluids including hydrostatics, hydrostatic forces, buoyancy and stability, Bernoulli's equation, pipe flow, open channel flow, drag, and lift.

P: None; REC: ET 118 and Math 203.