

# Engineering

Students in the engineering major will learn to apply fundamental knowledge of mathematics, science and engineering to the creative development of solutions to complex technical problems. The core curriculum provides students with an understanding of the core ideas that have shaped human thinking in engineering and the humanities, arts and sciences. This understanding gives students the context to understand the cultural intentions of God's plan for human activity and to understand the environmental, economic, ethical, sustainability, social and safety impact of their engineering designs on creation and mankind. Graduates will be well prepared to pursue employment in industry and to pursue graduate studies in engineering and related fields.

### What Type of Work are Related to this Degree?

- Applications engineering
- Electrical engineering
- Mechanical engineering
- Packaging/industrial design
- Chemical engineering
- Industrial engineering
- Quality control or analysis
- Traffic analysis and planning
- Instrumentation and control systems
- Water control/coordination
- Weapons and defense
- Robotics
- Construction

### Who Employs People with this Degree?

- Contracting and consulting firms
- Manufacturing firms
- Engineering firms
- Construction industries
- Industrial design/consulting firms
- Public utility companies
- Government agencies
- Pharmaceutical companies
- Insurance companies (safety)
- Medical device companies
- Communications or telecommunications
- Aerospace or defense industry
- Transportation industries

More information at [ONETonline.org](http://ONETonline.org)

### General Strategies for Success:

- A bachelor's degree provides a wide range of career opportunities in industry, business and government.
- Develop excellent verbal and written communications skills, including presentation and technical report writing. Learn to work well on a team to maximize collaborations with other engineers and those outside of the profession.
- Develop computer expertise within your chosen field. Because of rapid changes in most engineering fields, both continued education and keeping abreast of new developments are very important.
- Join relevant professional associations, attend meetings, participate in design competitions and stay up-to-date on research/publications.

### Professional Associations

American Engineering Association  
American Society of Civil Engineers  
American Society of Mechanical Engineers  
Institute of Electrical and Electronic Engineers  
Minnesota Society of Professional Engineers  
National Society of Professional Engineers  
Society of Women Engineers