



# **MECHANICAL ENGINEERING**

ALBERT A. HOPEMAN, JR. SCHOOL OF SCIENCE, ENGINEERING AND MATHEMATICS

## DEPARTMENT FACULTY

Erik J. Anderson, Ph.D. Professor of Mechanical Engineering

Erik R. Bardy, Ph.D. Chair; Professor of Mechanical Engineering; Field Director, Stan and Karen Office of Global Programs

Michelle A. Clauss '83, Ph.D. Assistant Chair; Professor of Mechanical Engineering

John M. Dixon '05, Ph.D. Professor of Mechanical Engineering

Mark C. Fair '85, Ph.D. Professor of Mechanical Engineering and Physics

Rachel K. Kohler, Ph.D. Assistant Professor of Mechanical Engineering

Qiuyan Li, Ph.D. Assistant Professor of Mechanical Engineering

George A. Richards, Ph.D. Associate Professor of Mechanical Engineering

Vern W. Ulrich, Ph.D., P.E. Professor of Mechanical Engineering

The low student to faculty ratio within the Mechanical Engineering program gave me high accessibility to my professors. I was able to receive focused assistance with coursework and build relationships with professors that enhanced my Grove City College experience.

– Molly Marino '21

## DEPARTMENT DESCRIPTION

Mechanical Engineering is a broad discipline that develops technological solutions to societal problems in order to benefit mankind. Graduates apply their skills to a vast array of areas including but not limited to renewable energy systems, medical devices, fuel efficient automobiles and building climate control systems.

#### MAJOR

#### Mechanical Engineering

The Bachelor of Science degree in mechanical engineering prepares students for graduate work and employment in engineering research, design, manufacturing, production, sales and management. Students complete 100 hours of course requirements in addition to the College core curriculum, which starts with an exposure to the fundamentals of science and engineering and culminates in a capstone design project.

## MINORS

### Robotics

The field of robotics is developing rapidly and Grove City is excited to be devoting important resources to the development of this discipline. Students complete 19-20 hours of course requirements (no additional credits are required; students take alternate classes to fulfill mechanical engineering requirements). Courses feature hands-on learning experiences, practical design and programming courses.

#### ACCREDITATION

The mechanical engineering program at Grove City College is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

#### STUDY ABROAD OPPORTUNITIES

There are many ways to gain technical elective, humanities, and general education credit through short and mid-term study abroad. Examples of mid-term study abroad include three-week summer abroad such as in France (ICAM Summer Program in Engineering in Vannes, France). Short-term programs include two- to three-week faculty-led international travel programs to destinations in Europe and Asia.

#### UNDERGRADUATE RESEARCH OPPORTUNITIES

Opportunities exist for students to become involved in research during the school year and summer. Current research areas include alternative energies, biomimetic propulsion, experimental fluid dynamics, light alternative vehicles, biomedical instrumentation, control systems, electrostatics applied in the food drying industry, and more.

#### **ON-CAMPUS ENGINEERING ORGANIZATIONS**

The American Society of Mechanical Engineers, Engineers with a Mission, American Society of Heating, Refrigerating and Air Conditioning Engineers, Society of Automotive Engineers and the Society of Women Engineers are active groups on campus.

#### **INTERNSHIPS**

Students are encouraged to participate in industry and/or research internships during summers and breaks. Faculty and the College's Career Services Office can assist students in the process of applying for these experiences.

#### CAREER AND GRADUATION OPPORTUNITIES

Graduates enjoy a wide variety of employment opportunities and have been hired by companies such as Bechtel Plant Machinery, General Electric, Honda R&D Americas, Northrop Grumman, Rolls Royce Nuclear Services, Toyota Motor Engineering & Manufacturing and Westinghouse Electric Company. Many of our students have gone to graduate schools such as MIT, Princeton, Notre Dame and Penn State.



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Grove City College is a highly ranked, nationally recognized private liberal arts and sciences college that equips students to pursue their unique callings through an academically excellent and Christ-centered learning and living experience distinguished by a commitment to affordability and promotion of the Christian worldview, the foundations of a free society and the love of neighbor. Established in 1876, the College is a pioneer in independent private education and accepts no federal funds. It offers students degrees in 60 majors on a picturesque 180-acre campus north of Pittsburgh, Pa. Accredited by the Middle States Commission on Higher Education, Grove City College is routinely ranked as one of the country's top colleges by U.S. News & World Report, The Princeton Review and others based on academic quality and superior outcomes.