

# Department of Mechanical Engineering

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[www.ndsu.edu/me](http://www.ndsu.edu/me)

Mechanical engineering is a broad field primarily concerned with the principles of motion, energy, and force. Mechanical engineers are called upon to design machinery, mechanisms, and systems that function safely, reliably, and efficiently to serve needs of society. To accomplish this, mechanical engineers apply scientific principles to problems that involve the motion of heat, gases, fluids, and solid materials.

Mechanical engineers may be found in nearly all segments of society. They work in industry, consulting practices, government facilities, and universities. In industry, mechanical engineers work for equipment manufacturers, utilities, material processing plants, environmental firms, and companies that deal with aerospace, transportation, petroleum, biomedical products, and others. Mechanical engineers employed by the government and universities contribute to the betterment of society by conducting research to solve present and future problems. As technology becomes more prevalent in daily life, mechanical engineers are increasingly called upon to apply that technology to develop devices that improve the standard of living.

## Aviation Program

A program of flight training is available, which prepares students for the FAA examinations for the Private Pilot's License. Three courses are offered under this program:

ME 311	Introduction To Aviation	3
ME 312	Introduction to Flight	2
ME 313	Commercial Instrument Ground School	3

Any student enrolled at NDSU or one of the other two Tri-College (<http://bulletin.ndsu.edu/past-bulletin-archive/2015-16/undergraduate/academic-policies/tri-college-university>) institutions may enroll in this program. No other courses are required as prerequisites.

## Cooperative Education

Students in Mechanical Engineering may participate in the Cooperative Education program (<https://www.ndsu.edu/career/internshipprogram>) at NDSU starting in their sophomore year. Students gain valuable industrial experience to complement their academic studies. Internships may last from one to three semesters.

Wages and benefits for Cooperative Education students are determined by the employer and are influenced by such factors as established wage scales, the co-op student's responsibilities, and the nature of the employer's business.

Mechanical Engineering (<http://bulletin.ndsu.edu/past-bulletin-archive/2015-16/undergraduate/colleges/engineering/mechanical-engineering/mechanical-engineering>)