

# MECHANICAL ENGINEERING

ASME describes mechanical engineers as those who create and develop mechanical systems for all of humankind. Virtually every aspect of life is touched by mechanical engineering. Spanning multiple industries, the career opportunities for mechanical engineers are diverse and found worldwide throughout thousands of companies ranging from large multinationals to small local firms. (Source: asme.org)

## PROGRAMS



### DEGREES AND CERTIFICATES

- Bachelor of Science in Mechanical Engineering
- Global Solutions in Engineering and Technology Minor
- HVACR Engineering Design Certificate
- Master of Science in Mechanical Engineering
- Master of Science in Engineering
- Global Solutions in Engineering and Technology Graduate Certificate

### ABOUT THE PROGRAM

Mechanical Engineering is essential to a wide range of activities that include the research, design, development, manufacture, management, and control of engineering systems, subsystems, and their components.

## REAL-WORLD CONNECTIONS



### SKILLS AND TALENTS

- Manufacturing
- Management
- Research
- Design
- Project Management
- Engineering Skills

### CAREERS

- Mechanical Engineer
- Manufacturing Engineer
- Project Engineer
- Mechanical Design Engineer
- Product Engineer
- Production Engineer

### EMPLOYERS

- 3M
- Boeing
- Boston Scientific Foundation
- Cirtec Medical
- Rolls-Royce
- Trane Technologies

## INSPIRED ACTION



### EMPLOYMENT RATE

**94.3%**  
of program graduates begin their careers within one year of graduation.

Graduates: 157  
Respondents: 144  
[link.mnsu.edu/graduate-follow-up](http://link.mnsu.edu/graduate-follow-up)

### MEDIAN SALARY

**\$96,310**

The median annual wage for Mechanical Engineers in May 2022.

Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, Mechanical Engineers, at [link.mnsu.edu/mechanical-engineering-salary](http://link.mnsu.edu/mechanical-engineering-salary)

### PROGRAM WEBSITE



[cset.mnsu.edu/me](http://cset.mnsu.edu/me)

## SAMPLE FOUR-YEAR PLAN - MECHANICAL ENGINEERING, BSME

| First Year (Fall)  | First Year (Spring)   |
|--|---|
| ME 101 Introduction to Mechanical Engineering (2)<br>MATH 121 Calculus I (4)<br>CHEM 191 Chemistry Applications (3)<br>ENG 101 Foundations of Writing & Rhetoric (4)<br>Required General Education Course (3)  | ME 103 Computer Graphics Communication (1)<br>ME 201 Introduction to Problem Solving & Design (2)<br>EE 244 Digital Logic (2)<br>MATH 122 Calculus II (4)<br>PHSY 221 General Physics I (4)           |
| Second Year (Fall)   | Second Year (Spring)  |
| ME 212 Statics ( 3)<br>EE 230 Circuits I (3)<br>EE 240 Circuits I Laboratory (1)<br>MATH 321 Differential Equations (4)<br>PHYS 222 General Physics II (3)<br>PHSY 232 General Physics II Laboratory (1)   | ME 203 GD&T in Engineering Design (2)<br>ME 214 Dynamics (3)<br>ME 223 Mechanics of Materials (3)<br>MATH 223 Calculus III (4)<br>Other Graduation Requirements Course (4)                            |
| Third Year (Fall)  | Third Year (Spring)   |
| ME 241 Thermodynamics (3)<br>ME 291 Engineering Analysis (3)<br>ME 306 Materials Science (3)<br>ME 321 Fluid Mechanics (3)<br>ME 341 Linear Systems Analysis (3)   | ME 324 Heat Transfer (3)<br>ME 329 Applied Thermodynamics (3)<br>ME 333 Manufacturing Processes (3)<br>ME 336 ME Experimentation I (2)<br>ME 417 Machine Elements (3)<br>General Education Course (3) |
| Fourth Year (Fall)   | Fourth Year (Spring)  |
| ME 420 Computer Aided Engineering (3)<br>ME 428 Design Project I (3)<br>ME 436W ME Experimentation II (2)<br>ME 463 Automatic Controls (3)<br>ME 492 ME Seminar (1) ME Required Elective (3)<br>General Education Course (3)<br>Elective Course in Major (3) | ME 438W Design Project II (3)<br>ME 466W ME Experimentation III (2)<br>ME Required Elective (3)<br>General Education Course (4)<br>General Education Course (3)                                       |

For more information about program requirements, visit:  
[mnsu.edu/academics/academic-catalog](https://mnsu.edu/academics/academic-catalog)

### LEARN MORE

#### Department of Mechanical and Civil Engineering

205 Trafton Science Center E  
 507-389-6383  
[jean.willaert@mnsu.edu](mailto:jean.willaert@mnsu.edu)

### NOTES

---



---



---



---



---



---



---