# Bachelor of Science in Mechanical Engineering -- 128 Credits

**JME-BSE (RG 7276)**

Effective August 2023

**Curriculum Requirements 2023-2024**

## Worlds of Knowledge (RG 4243)

### Aesthetic and Creative Expression

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### Global History & Culture

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### Societies & Civics

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### Follow-Up Courses

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Each student must take 1 course in each of the following Worlds of Knowledge.

Each student must take two additional "Follow-Up" courses from any of the following Worlds of Knowledge.

The minimum number of courses taken in the Worlds must be 5.

(No electives may be taken from the World of Science & Nature)

## Freshman Year Curriculum (RG 7276)

### Freshman Year Curriculum - 1st Term (RG 3437)

- Complete the following Courses CR Satisfied/Term
  - Chem 0150 General Chem Eng 1 3
  - Engr 0005 Composition 1 3
  - Engr 0017 Intro to Eng Analysis 3
  - Engr 0081 Freshman Seminar 1 0
  - Phys 0150 Physics 1 4
- Requirement Satisfied 17

### Freshman Year Curriculum - 2nd Term (RG 3438)

- Complete the following Courses CR Satisfied/Term
  - Chem 0151 General Chem Eng 2 3
  - Engr 0018 Intro Eng Computing 3
  - Engr 0092 Freshman Seminar 2 0
  - Math 0231 Analytic Geom & Calc 2 4
  - Phys 0152 Physics for Eng 2 4
- Requirement Satisfied 14

## Sophomore Year Curriculum (RG 7276)

### Soph Year Curriculum - 3rd Term (RG 3439)

- Complete the following Courses CR Satisfied/Term
  - Engr 0022 Materials Structure & Prop 3
  - Engr 0132 Statics 3
  - Math 0241 Calculus III 4
  - Math 1181 Linear Algebra 3
  - ME 0024 Intro Mech Engr Design 3
  - ME 1085 Dept Seminar 0
- Requirement Satisfied 16

### Soph Year Curriculum - 4th Term (RG 3440)

- Complete the following Courses CR Satisfied/Term
  - Chem 0214 Public Speaking 3
  - EE 0301 Linear Circuits 3
  - Engr 0142 Mechanics of Materials 3
  - Math 1271 Differential Equations 3
  - ME 0040 Materials & Manufacturing 3
  - ME 0052 Thermodynamics 1 3
  - ME 1085 Dept Seminar 0
- Requirement Satisfied 18

## Junior Year Curriculum (RG 7276)

### Junior Year Curriculum - 5th Term (RG 3441)

- Complete the following Courses CR Satisfied/Term
  - ME 1046 Measurements 2 3
  - ME 0071 Fluid Mechanics 3
  - ME 1026 Mechanical Design 1 3
  - ME 1053 Applied Thermodynamics 3
  - ME 1085 Department Seminar 0
- Requirement Satisfied 12

### Junior Year Curriculum - 6th Term (RG 3442)

- Complete the following Courses CR Satisfied/Term
  - ME 1013 Dynamic Systems 3
  - ME 1027 Mechanical Design 2 3
  - ME 1044 Measurements 1 3
  - ME 1071 Applied Fluids 3
  - ME 1085 Dept Seminar 0
- Requirement Satisfied 12

## Senior Year Curriculum (RG 7276)

### Senior Year Curriculum - 7th Term (RG 3443)

- Complete the following Courses CR Satisfied/Term
  - ME 1046 Measurements 2 3
  - ME 1054 Heat & Mass Transfer 3
  - ME 1085 Professional Practice 3
  - ME 1086 Department Seminar 0
- Requirement Satisfied 9

### Senior Year Curriculum - 8th Term (RG 3444)

- Complete the following Courses CR Satisfied/Term
  - ME 1085 Department Seminar 0
  - ME 1099 Senior Project 3
- Requirement Satisfied 3

## Electives (RG 7276)

### Engineering Electives (RQL 3778-10)

- Complete one of the following Courses CR Satisfied/Term
  - CE 1105 Materials of Construction 3
  - CE 1330 Intro to Structural Analysis 3
  - CE 1503 Intro to Environmental Eng 3
  - CE 1610 Eng & Sustainable Develop 3
  - CE 1811 Principles of Soil Mechanics 3
  - CHE 0214 Intro to Chem Proc Design 3
  - EE 0445 Prog & Intro to Data Struct 3
  - EE 1552 Signals and Systems 3
  - EE 1673 Control Systems 3
  - EE 1771 Electric Machines 4
  - Engr 1103 Engineering Economics 3
  - Engr 1115 Engineering Leadership 3
- Requirement Satisfied 3

### Dynamic Systems Electives (RQL 3778-20)

- Complete one of the following Courses CR Satisfied/Term
  - CHE 0510 Intro to Comp Fluid Dynamic 3
  - EE 1673 Control Systems 3
  - EE 1777 Measurements & Induct Con 3
  - EE 1771 Electric Machines 4
  - ME 1061 Off Road Vehicle Dynamics 3
  - ME 1063 Simulation and Modeling in ME Design 3
- Requirement Satisfied

Note: Courses taken under Engineering, Dynamic Systems, or ME Technical Electives cannot be counted in other Elective groups

### ME Technical Electives (RQL 3778-30)

- Complete two of the following Courses CR Satisfied/Term
  - CHE 0510 Intro to Comp Fluid Dynamic 3
  - EE 1777 Measurements Induct Con 3
  - ME 1056 Energy 3
  - ME 1066 Fluid Power 3
  - ME 1059 Heating, Vent, & Air Cond 3
  - ME 1172 CAD/CAE 3
  - ME 1173 Finite Element Methods 3
  - Engineering Co-Op (with approval) 3
- Requirement Satisfied 6

Note: 3 semesters of co-op, along with a paper and presentation count as an ME Technical Elective

## IMPORTANT INFORMATION:

This sheet is an unofficial representation of the major requirements and the information is subject to change. It is not an official record of academic progress and should not be treated as such. Official degree information can only be obtained through the Division Office or the Office of the Registrar.