## Degree Requirements for B.S. in Mechanical Engineering at Wayne State University

### Freshman Year

**First Semester**
- MAT 2010 – Calculus I
- CHM 1225 – (PS) Chemical Structure, Bonding & Reactivity
- CHM 1230 – Chemical Principles in the Laboratory
- B E 1200 – Introduction to Engineering Design
- ENG 1020 – (BC) Introductory College Writing

**Total** 15 Credits

**Second Semester**
- MAT 2020 – Calculus II
- PHY 2175 – (PS) General Physics
- M E 2050 – Introduction to Computer-Aided Drafting
- B E 1300 – Science of Engineering Materials I
- B E 1310 – Science of Engineering Materials Lab

**Total** 14 Credits

### Sophomore Year

**First Semester**
- MAT 2030 – Calculus III
- PHY 2185 – General Physics
- M E 2200 – Thermodynamics
- M E 2410 – Statics
- ECO 2010 – (SS) Principles of Microeconomics
- Critical Thinking Exam or PHI 1050 (CT) [taking sooner is better]

**Total** 17 Credits

**Second Semester**
- MAT 2150 – Differential Equations and Matrix Algebra
- M E 3310 – Fluid Mechanics
- M E 3320 – Fluid Mechanics Lab
- M E 3430 – Dynamics
- M E 3450 – Manufacturing Processes I
- ECE 3300 – Introduction to Electrical Circuits
- ECE 3310 – Electrical Circuits Laboratory

**Total** 18 Credits

### Junior Year

**First Semester**
- M E 3310 – Fluid Mechanics
- M E 3320 – Fluid Mechanics Lab
- M E 3430 – Dynamics
- M E 3450 – Manufacturing Processes I
- ECE 3300 – Introduction to Electrical Circuits
- ECE 3310 – Electrical Circuits Laboratory

**Total** 17 Credits

**Second Semester**
- M E 4210 – Heat Transfer Theory and Lab
- M E 4250 – Design Machine Elem
- M E 4410 – Vibrations Theory and Lab
- PHI 1120 – (PL) Professional Ethics
- Visual & Performing Arts Elective – (VP)

**Total** 17 Credits

**Senior Year**

**First Semester**
- M E 4210 – Heat Transfer Theory and Lab
- M E 4420 – Analysis and Control of Dynamic Systems
- Mechanical Engineering 5000 Level Technical Electives
- Historical Studies Elective – (HS)
- P S 1030 – (AI) The American Government System

**Total** 18 Credits

**Second Semester**
- M E 4500 – (WI) Mechanical Engineering Design II
- Mechanical Engineering 5000 Level Technical Elective
- BIO 1510 – (LS) Basic Life Mechanisms
- ANT 3150 – (FC) Anthropology of Business

**Total** 14 Credits

**Total Credits** 129

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* Summer is NOT regarded as a "primary" semester, in that there are no guaranteed course offerings.

* You can substitute: ECO 2020 for ECO 2010; any (AI) designated course for P S 1030; any (FC) designated course for ANT 3150.