# Mechanical Engineering

## First Year
### Fall
- **AME 101**: Intro. to Mechanical Engr. & Graphics
- **ENGR 102**: Engineering Freshman Academy
- **CHEM 105aL** or **MASC 110L**: General Chemistry or Materials Science
- **MATH 125**: Calculus I
- **MATH 126**: Calculus II
- **MATH 226**: Calculus III
- **MATH 245**: Mathematics of Phys. & Engr.
- **GEN ED**: General Education
- **OPT. ELECTIVE**: Any approved AME design elective

### Spring
- **AME 201**: Statics
- **PHYS 151L**: Mechanics & Thermodynamics
- **PHYS 152L**: Mechanics & Thermodynamics
- **PHYS 153L**: Optics & Modern Physics
- **GEN ED**: General Education
- **OPT. ELECTIVE**: Any approved AME design elective

## Second Year
### Fall
- **AME 204**: Strength of Materials
- **AME 301**: Dynamics
- **AME 308**: Comp. Aided Analyses for Aero-Mechanical Design
- **AME 309**: Dynamics of Fluids
- **AME 310**: Engineering Thermodynamics I
- **AME 331**: Heat Transfer
- **AME 341aL**: Mechoptronics Laboratory I
- **AME 341bL**: Mechoptronics Laboratory II
- **AME CORE**: Any upper division course in AME
- **AME DESIGN ELECTIVE**: Any approved AME design course
- **AME CAPSTONE ELECTIVE**: Any approved Capstone Elective Course
- **ENG 102**: Engineering Freshman Academy
- **ITP 168**: Introduction to MATLAB
- **MASC 310**: Materials Behavior & Processing
- **WRIT 150**: Writing & Critical Reasoning
- **WRIT 340**: Advanced Writing

### Spring
- **AME 302**: Dynamic Systems
- **AME 301**: Dynamics
- **AME 308**: Comp. Aided Analyses for Aero-Mechanical Design
- **AME 309**: Dynamics of Fluids
- **AME 310**: Engineering Thermodynamics I
- **AME 331**: Heat Transfer
- **AME 341aL**: Mechoptronics Laboratory I
- **AME 341bL**: Mechoptronics Laboratory II
- **AME CORE**: Any upper division course in AME
- **AME CAPSTONE ELECTIVE**: Any approved Capstone Elective Course
- **GEN ED**: General Education
- **OPT. ELECTIVE**: Any approved AME design elective

## Third Year
### Fall
- **AME 301**: Dynamics
- **AME 308**: Comp. Aided Analyses for Aero-Mechanical Design
- **AME 309**: Dynamics of Fluids
- **AME 310**: Engineering Thermodynamics I
- **AME 331**: Heat Transfer
- **AME 341aL**: Mechoptronics Laboratory I
- **AME 341bL**: Mechoptronics Laboratory II
- **AME CORE**: Any upper division course in AME
- **AME DESIGN ELECTIVE**: Any approved AME design course
- **GEN ED**: General Education
- **OPT. ELECTIVE**: Any approved AME design elective

### Spring
- **AME 302**: Dynamic Systems
- **AME 301**: Dynamics
- **AME 308**: Comp. Aided Analyses for Aero-Mechanical Design
- **AME 309**: Dynamics of Fluids
- **AME 310**: Engineering Thermodynamics I
- **AME 331**: Heat Transfer
- **AME 341aL**: Mechoptronics Laboratory I
- **AME 341bL**: Mechoptronics Laboratory II
- **AME CORE**: Any upper division course in AME
- **AME CAPSTONE ELECTIVE**: Any approved Capstone Elective Course
- **GEN ED**: General Education
- **OPT. ELECTIVE**: Any approved AME design elective

## Fourth Year
### Fall
- **AME 451**: Senior Projects Laboratory
- **AME CORE**: Any upper division course in AME
- **AME DESIGN ELECTIVE**: Any approved AME design course
- **GEN ED**: General Education
- **OPT. ELECTIVE**: Any approved AME design elective

### Spring
- **AME 441aL**: Senior Projects Laboratory
- **AME CORE**: Any upper division course in AME
- **AME CAPSTONE ELECTIVE**: Any approved Capstone Elective Course
- **GEN ED**: General Education
- **OPT. ELECTIVE**: Any approved AME design elective

## Mathematics
- **MATH 125**: Calculus I
- **MATH 126**: Calculus II
- **MATH 226**: Calculus III
- **MATH 245**: Mathematics of Phys. & Engr.

## Science
- **CHEM 105aL**: General Chemistry or Materials Science
- **PHYS 151L**: Mechanics & Thermodynamics
- **PHYS 152L**: Electricity & Magnetism
- **PHYS 153L**: Optics & Modern Physics

## General Education
As a USC Viterbi student your General Education (Gen Ed) curriculum will include courses in the Arts, Humanistic Inquiry and Social Analysis.

## Writing
- **WRIT 150**: Writing & Critical Reasoning
- **WRIT 340**: Advanced Writing

## Electives
Your optional electives are one way to build engineering+ into your curriculum by choosing classes of interest to you.

Courses with this symbol may be satisfied with certain AP, IB or A-Level exams. With each requirement you replace with prior credit, you increase your optional electives, creating more flexibility for you to pursue additional electives and increase your engineering+ education.

This is a simplified version of a complex curriculum with options and choices made between advisor and student. Course choices can vary by semester and adjust to include relevant topics and materials. Although every attempt has been made to ensure accuracy, the program requirements listed in the USC Catalogue supersede any information which may be contained in this or any other publication of any school or department. The information found in this document is not intended for advising purposes. The University reserves the right to change its policies, rules, regulations, requirements and course offerings at any time.