# 2008-09 Mechanical Engineering Program Requirements

**UC Merced Campus Requirements**
- **CORE 001 (4)** The World at Home I
- **WRI 010 (4)** College Reading & Composition
- **CORE 100 (4)** The World at Home II

**Engineering Major Preparation**
- **CHEM 002 (4)** General Chemistry
- **PHYS 009 (4)** Physics II
- **MATH 022 (4)** Calculus II
- **MATH 23 (4)** Vector Calculus
- **MATH 24 (4)** Linear Algebra & Diff. Equations

**Engineering Fundamentals**
- **ENGR 045 (4)** Intro to Materials
- **ENGR 155 (3)** Engineering Economic Analysis #Junior or Senior standing only

**General Education Requirements**
- **MATH 021 (4)** Calculus I
- **PHYS 008 (4)** Physics I
- **MATH 032 (4)** Statistics
- **BIO 001 (4)** Contemporary Biology
- **CSE 020 (2)** Intro to Computing I
- **CSE 021 (2)** Intro to Computing II
- **ENGR 097/197 (3)** Or SSHA GE

**Mechanical Engineering Sequences**
Includes some Engineering Fundamentals courses and Mechanical Engineering core courses. Courses must be completed in sequence. All courses are offered in one term only (Fall or Spring).

- **ENGR 130 (3)** Statics and Dynamics
- **ENGR 135 (4)** Heat Transfer
- **ENGR 137 (4)** Modeling & Design of Energy Systems
- **ENVE 130 (4)** Meteorology & Air Pollution
- **ENVE 160 (4)** Sustainable Energy
- **ENVE 162 (3)** Sustainable Energy

**ME Core**
- **ME 120 (3)** Component Design
- **ME 135 (4)** Structural Analysis
- **ME 137 (4)** Computer Aided Engineering
- **ME 140 (3)** Vibration & Control
- **ME 142 (4)** Mechatronics

**Select Technical Electives from the following:**
- **ENGR 065 (3)** Circuit Theory
- **ME 142 (4)** Mechatronics
- **ME 118 (3)** Intro to Nanotech & Nanoscience
- **ME 120 (3)** Component Design

**Professional Seminar**
- **ENGR 057 (4)** Strength of Materials
- **ENGR 191 (1)** Professional Seminar #Taken last semester of Senior year

**UC Merced School of Engineering, 8/2012**