2011-13 Mechanical Engineering Program Requirements

Name: ___________________________ ID Number: _________________________

Class level (circle one): Freshman Sophomore Junior Senior

UC Merced Campus Requirements

CORE 001 (4) The World at Home I
WRI 010 (4) College Reading & Composition

General Education Requirements

MATH 021 (4) Calculus I for Physical Sci & Engineer
PHYS 008 (4) Physics I
MATH 032 (4) Probability & Statistics

CHEM 002 (4) General Chemistry
PHYS 009 (4) Physics II
MATH 022 (4) Calculus II for Physical Sci & Engineer
MATH 023 (4) Vector Calculus
MATH 024 (4) Linear Algebra & Diff. Equations

 arts/Humanities GE (4)

PHYS 008 (4) Physics I
MATH 021 (4) Calculus I for Physical Sci & Engineer

BIO 001 (4) Contemporary Biology
CSE 020 (2) Intro to Computing I
CSE 021 (2) Intro to Computing II

Social Science GE (4)

PHYS 009 (4) Physics II
MATH 023 (4) Vector Calculus

ENGR 097/197 (3) Or SSHA GE

Engineering Major Preparation

CHEM 002 (4) General Chemistry
PHYS 009 (4) Physics II
MATH 022 (4) Calculus II for Physical Sci & Engineer
MATH 023 (4) Vector Calculus
MATH 024 (4) Linear Algebra & Diff. Equations

Mechanical Engineering Sequences

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

Engineering Fundamentals

ENGR 155 (3) Engineering Economic Analysis #Junior or Senior Standing only

Professional Seminar

ENGR 191 (1) Professional Seminar #Taken final semester of senior year

ENGR 057 (4) Statics and Dynamics
ENGR 045 (4) Intro to Materials

ME 137 (4) Computer Aided Engineering
ME 170 (4) Capstone Design #Senior Standing

Select 12 units of Technical Electives from the following:

ME 135 (3) Finite Element Analysis
ME 136 (4) Aerodynamics
ME 142 (4) Mechatronics
ME 190 (3) Special Topics in ME
ENVE 130 (4) Meteorology & Air Pollution
ENVE 132 (3) Air Pollution Control
ENVE 160 (4) Sustainable Energy
ENVE 162 (3) Modeling & Design of Energy Systems #Juniors and Seniors only
MSE 118 (3) Intro to Nanotech & Nanoscience

ME Core

ME 140 (3) Vibration & Control
ENGR 065 (3) Circuit Theory

ME 120 (3) Component Design
ME 136 (4) Aerodynamics
ENGR 136 (4) Fluid Mechanics
ENGR 190 (3) Special Topics in ME

ME 135 (4) Heat Transfer
MATH 131 (4) Numerical Analysis I

MATH 131 (4) Numerical Analysis I
ME 130 (3) Thermodynamics
ENGR 120 (4) Fluid Mechanics
ENGR 151 (4) Strength of Materials

 UC Merced School of Engineering, 9/2012