



Curriculum for B.S. Degree in Mechanical Engineering (194 units)

CALIFORNIA STATE UNIVERSITY, LOS ANGELES

(Effective Winter 2005)

Lower Division General Education Requirements (32 units)

ENGL 101	Composition I: Reflective and Expository Writing (4)
COMM 150	Oral Communication (4)
HIST 202A or 202B	United States Civilization (4)
POLS 150	Government and American Society (4)
BLOCK C – Humanities	3 courses from 3 different areas (12)
BLOCK E – Lifelong Understanding Self-Development	1 course (4)

University Requirement (4 units)

ENGL 102	Composition II: Analytical and Persuasive Writing (4)
WPE	Writing Proficiency Exam (Prior to completing 135 quarter units) <i>Prerequisites:</i> ENGL 102

Lower Division Major Requirements (68 units)

ENGR 100	Introduction to Engineering (1) <i>Prerequisites:</i> NONE
ME 103	Introduction to Mechanical Design (3) <i>Prerequisites:</i> Drafting or TECH 110
CE/ME 201	Statics (4) <i>Prerequisites:</i> PHYS 211, MATH 207
ME 204	Mechanical Engineering Measurements and Instrumentation (4) <i>Prerequisites:</i> PHYS 213
CE/ME 205	Strength of Materials I (4) <i>Prerequisites:</i> CE/ME 201
ENGR 207	Materials Science and Engineering (4) <i>Prerequisites:</i> CHEM 101, MATH 206
CE/ME 210	Matrix Algebra for Engineers (2) <i>Prerequisites:</i> MATH 208
EE 210	Electrical Measurements Laboratory (1) <i>Prerequisites:</i> PHYS 213
CE/ME 211	Statistics and Probability for Engineers (2) <i>Prerequisites:</i> MATH 208
CHEM 101	General Chemistry I (5) <i>Prerequisites:</i> HS CHEM & PHYS; 2 years of HS Algebra, Placement Test
CS 290*	Introduction to FORTRAN Programming (2) <i>Prerequisites:</i> MATH 206
MATH 206	Calculus I: Differentiation (4) <i>Prerequisites:</i> ELM, MATH 102, 103 w/grade of “C” or placement test
MATH 207	Calculus II: Integration (4) <i>Prerequisites:</i> MATH 206 w/a minimum of “C” grade
MATH 208	Calculus III: Sequences, Series, and Coordinate Systems (4) <i>Prerequisites:</i> MATH 207 w/min. “C”
MATH 209	Calculus IV: Several Variables (4) <i>Prerequisites:</i> MATH 208 w/a minimum of “C” grade
MATH 215	Differential Equations (4) <i>Prerequisites:</i> MATH 209
PHYS 211	Mechanics (5) <i>Prerequisites:</i> High School PHYS; MATH 206 (concurrently)
PHYS 212	Waves, Optics & Thermodynamics (5) <i>Prerequisites:</i> PHYS 211; MATH 207 (concurrently)
PHYS 213	Electricity and Magnetism (5) <i>Prerequisites:</i> PHYS 212; MATH 208 (concurrently)

*May substitute a course in any high-level programming language with department approval.

Upper Division Major Requirements (41 units)

ENGR 300	Economics for Engineers (4) <i>Prerequisites:</i> NONE
ENGR 301	Ethics and Professionalism (1) <i>Prerequisites:</i> NONE
CE/ME 303	Fluid Mechanics I (4) <i>Prerequisites:</i> PHYS 212
ME 306	Heat Transfer I (4) <i>Prerequisites:</i> MATH 208, PHYS 212
ME 310	Mechanical Engr. Writing Laboratory (1) <i>Prerequisites:</i> WPE or UNIV 401, ENGR 100
CE/ME 313	Fluid Mechanics Laboratory I (1) <i>Prerequisites:</i> CE/ME 303
ME 315	Thermal Systems Laboratory I (1) <i>Prerequisites:</i> ME 326A, ME 306
CE/ME 312	Strength of Materials Laboratory I (1) <i>Prerequisites:</i> CE/ME 205
CE/ME 320	Dynamics I (4) <i>Prerequisites:</i> CE/ME 201
*ME 321	Kinematics of Mechanisms (4) <i>Prerequisites:</i> ME 320
ME 323	Machine Design I (4) <i>Prerequisites:</i> ME 103, CE/ME 205, ENGR 207, MATH 208
ME 326A	Thermodynamics I (4) <i>Prerequisites:</i> PHYS 212, MATH 208
ME 326B	Thermodynamics II (4) <i>Prerequisites:</i> ME 326A
ME 327	Manufacturing Processes (4) <i>Prerequisites:</i> ENGR 207, ME 323
*ME 421	Dynamics of Mechanisms (4) <i>Prerequisites:</i> ME 320

*Students must select either ME 321 or ME 421 as a required course. The other may be used as an upper division technical elective.

