



SACRAMENTO
STATE

Program Proposal Form B



Academic Group (College): Engineering & Computer Science	Date of Submission to College Dean: 3/12/2009
Academic Organization (Department): Mechanical Engineering	Requested Effective: Fall_2009_, Spring_, 20__.
Department Chair: Susan L. Holl	Contact if not Department Chair:

Title of the Program (Please be specific; indicate minor, undergraduate or graduate degree, etc.):
Bachelor of Science Program in Mechanical Engineering

Type of Program Proposal:

Modification in Existing Program:
 Substantive Change
 Non-Substantive Change
 Deletion of Existing Program

New Programs
 Initiation (Projection) of New Program on to Master Plan
 New Degree Programs
 Regular Process
 Fast Track Process
 Pilot Process
 New Minor, Concentration, Option, Specialization, Emphasis
 New Certificate Program

PLEASE NOTE: Form B is to be used only as a Cover Form. Additional information is requested for each of the above as noted in the corresponding procedure in the Policies and Procedures for Initiation, Modification, Review and Approval of Courses and Academic Programs found at <http://www.csus.edu/umannual/acad.htm>

Briefly describe the program proposal (new or change) and provide a justification.

All engineering programs in the system have been asked to reduce the number of units required to earn the baccalaureate degree. With the proposed changes to the major requirements the B.S. program in Mechanical Engineering will reduce from 137 units to 129. With these changes we will offer our students a first rate core education and be able to tailor our elective offerings to provide the flexibility needed to adapt to changes in the local economy. The program will remain ABET accredited.

The changes do not affect any department outside of the College, and only the Civil Engineering Department within the College (the replacement of one course normally taught by Civil Engineering). Civil Engineering is aware of and supportive of our proposed changes.

There will be no additional fiscal or space resources required.

Approvals:

Department Chair: Susan L. Holl Date: 4/24/09

College Dean: John Chelburg Date: 4/29/09

University Committee: _____ Date: _____

Associate Vice President and Dean
for Academic Affairs: _____ Date: _____

Proposed Changes to the B.S. Program in Mechanical Engineering:

Itemized list of changes:

1. Delete from lower division required courses: ME 75
2. Replace ME 175 (3 units) with new course, ME 105 (3 units)
3. Replace E 115 (2 units) with new course, ME 108 (2 units)
4. Replace ME 118 (3 units) with new course, ME 116 (2 units)
5. Replace ME 119 (3 units) with new course, ME 117 (2 units)
6. Delete from upper division required courses: ME 125 (2 units)
7. Replace ME 127 (3 units) with new course, ME 128 (3 units)
8. Delete ME 115 (3 units) as a required course
9. Add ME 172 (3 units) as a required course
10. Require all students to take ME 171 rather than a choice of ME 171 or ME 114
11. Reduce the number of units in ME 180 from 4 to 3
12. Reduce the number of units in ME 191 from 3 to 2

NEW PROGRAM

A. Required Lower Division Courses

(43 units)

Chem 1A (5 units)

General Chemistry

Math 30 (4 units)

Calculus I

Math 31 (4 units)

Calculus II

Math 32 (4 units)

Calculus III

Math 45 (3 units)

Diff. Eq. for Science & Math

Phys 11A (4 units)

General Physics: Mechanics

Phys 11C (4 units)

General Physics: Elec, Mag, Modern

Engr 6 (3 units)

Engin Graphics & CAD

Engr 17 (3 units)

Intro Circuit Analysis

Engr 30 (3 units)

OLD PROGRAM

A. Required Lower Division Courses

(45 units)

Chem 1A (5 units)

General Chemistry

Math 30 (4 units)

Calculus I

Math 31 (4 units)

Calculus II

Math 32 (4 units)

Calculus III

Math 45 (3 units)

Diff. Eq. for Science & Math

Phys 11A (4 units)

General Physics: Mechanics

Phys 11C (4 units)

General Physics: Elec, Mag, Modern

Engr 6 (3 units)

Engin Graphics & CAD

Engr 17 (3 units)

Intro Circuit Analysis

Engr 30 (3 units)

Analytic Mechanics: Statics
Engr 45 (3 units)
Engineering Materials
ME 37 (3 units)
Manufacturing Processes
+++++

Analytic Mechanics: Statics
Engr 45 (3 units)
Engineering Materials
ME 37 (3 units)
Manufacturing Processes
ME 75 (2 units)
Intro. Comp. Aided Engineering

B. Required Upper Division Courses

(44 units)
Engr 110 (3 units)
Analytic Mechanics: Dynamics
Engr 112 (3 units)
Mechanics of Materials
+++++

Engr 124 (3 units)
Thermodynamics
Engr 132 (3 units)
Fluid Mechanics
ME 105 (3 units)
Intro to Technical Problem Solving
ME 108 (2 units)
Professional Topics for Mech Eng
+++++

ME 116 (2 units)
Machinery Design I
ME 117 (2 units)
Machinery Design II
+++++

+++++

+++++

ME 126 (3 units)
Heat Transfer
+++++

ME 128 (3 units)
Thermal-Fluid Systems

B. Required Upper Division Courses

(50 units)
Engr 110 (3 units)
Analytic Mechanics: Dynamics
Engr 112 (3 units)
Mechanics of Materials
Engr 115 (2 units)
Statistics for Engineers
Engr 124 (3 units)
Thermodynamics
Engr 132 (3 units)
Fluid Mechanics
+++++

+++++

ME 115 (3 units)
Dynamics of Machinery
+++++

+++++

ME 118 (3 units)
Product Design I
ME 119 (3 units)
Product Design II
ME 125 (2 units)
Mech. Engin. Measurements
ME 126 (3 units)
Heat Transfer
ME 127 (3 units)
Intermediate Thermodynamics
+++++

ME 138 (3 units)
Concurrent Product & Process Design

ME 171 (3 units)
Comp. Modeling & Desgn Dyn Syst.

ME 172 (3 units)
Conrol System Design

+++++

ME 180 (3 units)
Mech. Prop. Of Materials

ME 190 (3 units)
Project Engineering I

ME 191 (2 units)
Project Engineering II

ME 138 (3 units)
Concurrent Product & Process Design

ME 171 or ME 114 (3 units)
Comp. Modeling & Desgn Dyn Syst.

+++++

ME 175 (3 units)
Comp. App. in Mech. Engin.

ME 180 (4 units)
Mech. Prop. Of Materials

ME 190 (3 units)
Project Engineering I

ME 190 (3 units)
Project Engineering II

C. Additional Upper Division Requirements
(6 units)
Two ME electives

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(6 units)
Two ME electives

Revised and approved by the Department of Mechanical Engineering 3/6/2009