

# CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA

## MECHANICAL ENGINEERING DEPARTMENT

### TECHNICAL ELECTIVE PACKAGE SELECTIONS

Students should prepare a Technical Elective Package from the courses listed below. No more than 4 units of technical elective courses may be taken outside of the Mechanical Engineering Department. In the list below, the number in parentheses after each course title indicates the unit credit for the course. A maximum of three units of technical electives may be taken from the "miscellaneous course" category. If the Technical Elective Package includes courses not listed below, the package must also be approved by the Mechanical Engineering Department Curriculum Committee.

When you have decided on your elective package, complete the attached Technical Elective Approval Forms and obtain the required approvals. It is the student's responsibility to satisfy the published prerequisites for any course selected as part of the elective package.

#### MECHANICAL ENGINEERING

ME 307 Alt Energy Systems (4)	ME 413 Mechanical Vibrations (4)**
ME 330 Engr Numerical Methods (4)#	ME 417 Bldg Energy Calc (3)/Lab (1)
ME 400 Special Study (1,2) Max 4 units	ME 418 Air Conditioning (3)/ Lab (1)
ME 405 Acoustics & Noise Control (4)	ME 421 Dyn of Machinery (4)
ME 406 Finite Elements (3)/Act. (1)++	ME 425 Adv Machine Design (3)/Lab (1)
ME 407 Solar Thermal Engr (4)	ME 427 Thermal Design (4)
ME 408 Nuclear Engr (4)	ME 439 Design Mach Controls (3)/Lab (1)+
ME 411 Heat Power (3)/Lab (1)	ME 499 Special Topics (1-4)
ME 412 Intl Combust Engrs (3)/Lab (1)	

#### OTHER ENGINEERING COURSES

ECE 309 Control Systems (4)	MTE 406 Phy Metal-Solid (3)/Lab (1)
ARO 311 Gas Dynamics (3)	MTE 407 Ceramic Materials (3)/Lab (1)
MTE 327 Adv Science of Materials(3)/Lab (1)	MTE 408 Intro Comp Matls (3)/Lab (1)
MTE 404 Adv Science of Materials (4)	MTE 422 Failure Analysis (3)
MTE 405 Phys Metal-Mechanical (4)	

#### ME 5XX or EGR 5XX

A graduate level engineering class may be taken as part of the Technical Elective Package if the student has senior standing (135 units or more completed), an upper-division GPA of at least 2.75, satisfies the appropriate prerequisites, and fills out the Request Form to receive undergraduate credit in a graduate course.

#### SCIENCE COURSES

MAT 317 Laplace Trans & Fourier series (3)	PHY 340 Energy & Environment (4)*
MAT 318 Math Analysis of Engr Prob (3)	PHY 410 Biophysics (4)
STA 315 Prob & Stat for Engineers (4)	

#### MISCELLANEOUS COURSES (MAXIMUM OF 3 UNITS)

ME 306 Energy Management (4)	CE 457 Solid Waste Mgmt (3)
MFE 310 Adv Computer Aided Drafting (2/1)	STA 309 Stat Methods in Engr & Phys Sci (3)
MFE 334 Foundry Process Eng/Lab (2/1)	ME 299L Machine Tools Theory & Practice (1)
STA 330 Applied Probability Theory (4)	ME 299A Solidworks (2)
STA 440 Mathematical Statistics (4)	ME 299A Robotics (2)
CE 304 Structural Analysis (4)	

# Applies to students on flow charts 02-03 and later.

\*Cannot be taken if ME 307 is part of the technical elective package.

\*\*For curriculum year 97-98 and later only.

+ For curriculum year 02-03 and earlier.

++ For curriculum year 03-04 and earlier.

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA  
 MECHANICAL ENGINEERING DEPARTMENT  
 TECHNICAL ELECTIVE PACKAGE APPROVAL FORM

Name \_\_\_\_\_ BID \_\_\_\_\_

Proposed Graduation Date \_\_\_\_\_ Curriculum Year \_\_\_\_\_

Required No. of Technical Electives \_\_\_\_\_ Date Revised \_\_\_\_\_

COURSE NO.	COURSE NAME	COURSE UNITS
TOTAL UNITS		

Approved by \_\_\_\_\_ Date \_\_\_\_\_  
Faculty Advisor

Deviations?  YES  NO

**FOR ME 400, ATTACH THE ME 400 FORM AND A SEPARATE SHEET SUMMARIZING THE STATEMENT OF THE WORK TO BE DONE.**

The Mechanical Engineering Department Curriculum Committee must approve all technical elective deviations.

Approved by \_\_\_\_\_ Date \_\_\_\_\_  
ME Dept. Curriculum Committee

Submit 2 copies and original to department office

(One copy needs to be attached to your grad check, one for your records and original to dept office)