EE ELECTIVES

ECE Electives: Any three ECE courses selected by the student with prior approval of advisor.

ENGR Elective: One required, select from:
- ME 27100 Basic Mechanics I (Statics), ME 30500 General Thermodynamics I, or MSE 20000 Materials Science

ENGR/Science Elective: One required, select from:
- Any of the Engineering or Science courses from the list of Acceptable Technical Elective Courses plus
  - BIOL 10100 or 10200 Introductory Biology
  - CHEM 26100 Organic Chemistry
  - BIOL 21300 Human Anatomy & Physiology I

Bioinstrumentation Concentration (replacing all non-Hum/SS electives):
- ME 27100 Basic Mechanics I (Statics)
- ECE 47600 Digital Signal Processing

One of the Following Courses:
- ECE 55400 Electronic Instrumentation and Control Circuits Analysis
- ECE 56900 Introduction to Robotic Systems
- ECE 59500 Digital Image Processing

One of the Following Courses:
- BIOL 10100 Introductory Biology
- BIOL 21300 Human Anatomy and Physiology I

Bioinstrumentation Concentration (replacing all non-Hum/SS electives):
- ME 27100 Basic Mechanics I (Statics)
- ECE 50600 Biomedical Instrumentation Design
- ECE 50700 Introduction to Biomedical Imaging

Mechatronics Concentration (replacing all non-Hum/SS electives):
- ME 27100 Basic Mechanics I (Statics)
- ECE 38000 Comps. in Engr. Analysis
- ME 27500 Basic Mechanics II: Dynamics
- ECE 42600 Electric Drives
- ME 32500 Dynamics of Physical Systems

One Elective Required, Select From:
- ECE 45100 Industrial Automation
- ECE 48300 Digital Control Sys.-Analysis & Design
- ME 30500 General Thermodynamics I
- ME 32000 Kinematic Analysis and Design

Power and Energy Systems Concentration (replacing all non-Hum/SS electives):
- ECE 42800 Electric Drives
- ENGR Elective: (ME 27100 Basic Mechanics I (Statics) or ME 30500 General Thermodynamics I or MSE 20000 Materials Science)
- ECE 43200 Power Systems
- ECE 42301 Power Electronics

Two Electives Required, Select From:
- ECE 45100 Industrial Automation
- ECE 48300 Digital Control Sys.-Analysis & Design
- ME 27100 or ME 30500 if not used for the ENGR Elec.
- ECE 50900 Advanced Electric Drives

ACCEPTABLE TECHNICAL ELECTIVES

Acceptable technical elective courses include:

1. Any Engineering (CE, ECE, ENGR, ME, or MSE) or Computer Science course 20000 or above that is required in another engineering curricula, or is an elective in any engineering curricula (and that has not been used to meet another requirement) except CE 20100.

2. Any Engineering (CE, ECE, ENGR, ME, or MSE) or Computer Science course 49500 and above with prior approval of advisor.

3. Any of the following courses:
   - BUSM 33300 Total Quality Management
   - BUSM 36300 Total Quality Techniques
   - CHEM 11600 General Chemistry II
   - CHEM 26100 Organic Chemistry
   - CHEM 31000 Financial Management
   - CHEM 32200 Intermediate Optics
   - MA 31500 Intro. To Abstract Math.
   - MA 34500 Coding and Information Theory
   - MA 34800 Discrete Mathematics
   - MA 47200 Introduction to Applied Math.*
   - MKG 32400 Marketing Management
   - PHYS 31100 Quantum Physics I
   - PHYS 32200 Intermediate Optics
   - PHYS 34200 Modern Physics
   - STAT 34500 Statistics*

Other courses, including BIOL, CHEM, MA, MGMT, PHYS, and STAT course 50000 and above, may be used with approval of the Undergraduate Curriculum Committee. Approval requests must be sent to the chair of the Undergraduate Curriculum Committee, Edward S. Pierson, at pierson@purduecal.edu.

* Students who take MA 47200 or STAT 34500 can receive a Minor in Applied Mathematics

ACCEPTABLE HUMANITIES AND SOCIAL SCIENCES ELECTIVE COURSES

Required (9 credits):
- PHIL 32400 Ethics for the Professions (3 cr.) [please take the special section for engineers] which meets the General Education requirement for Humanities
- One course (3 credits) that meets the General Education requirement for Social Sciences
- The balance (3 credits) is selected by the student and advisor to give the student an opportunity to explore areas within the humanities and social sciences. Credit for ECON 21000 is not allowed.

Subject areas not acceptable are skills courses such as writing and speaking, accounting, industrial management, personal finance, ROTC, and personnel administration. Credit is not allowed for a student’s native language.