University and Electrical Engineering Department Policies that EE and CPE Students Should be Aware of

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University Policies

Students in the Cal Poly Electrical Engineering Department must comply with all university requirements as stated in the Cal Poly Catalog online at http://catalog.calpoly.edu/ and by the Academic Programs Office http://www.academicprograms.calpoly.edu/academicpolicies/index.html . These policies specify certain rights and responsibilities of the students that are consistent with, but more general than department polices. Following is a partial list of polices of the EE department that students should especially be aware of to assure academic success and completion of the program in four years. All of these policies apply to EE majors. Policies related to course offerings, prerequisites, and the Blended (4+1) Masters Degree Program apply to both EE and CPE majors.

Student Progress and Class Level

A Bachelor of Science degree at Cal Poly requires the completion of courses in the major field, as well as specified engineering support, technical elective, and general education courses. Complete course work requirements are listed online at   http://www.calpoly.edu/~acadprog/2007depts/cengr/ee_dept/ee.pdf for EE majors and http://www.calpoly.edu/~acadprog/2007depts/cengr/cpe_prog/cpe.pdf for CPE majors.

Class level (Freshman, Sophomore, Junior, Senior) is determined by student progress through the program as defined by the flowchart, NOT by the number of years a student has attended Cal Poly. Students failing to complete all major area courses specified in the flowchart for a given class level are considered at that class level until the requirements are completed.

Course Offering Policy

We strongly encourage students to keep up with the students in their graduation class. Students are expected to take courses in the order and in the quarters specified on their respective (EE or CPE) curriculum flow charts. This avoids all problems with course offerings and course prerequisites, and enables graduation in four years. The EE major flowchart is online at http://eadvise.calpoly.edu/policy/forms/ee-flowchart-2007-2009.pdf. The CPE flowchart is online at http://eadvise.calpoly.edu/policy/forms/cpe-flowchart-2007-2009.pdf. A complete listing of EE-based course offerings for the entire year is online at http://www.ee.calpoly.edu/media/files/course_offerings_2008-2009.pdf. The objectives and history behind this policy, and all current policy information, may be found at http://www.ee.calpoly.edu/policies/ .

If a course is taken in the quarter specified on the flowchart, *the EE Department promises to accommodate all students* to assure that EE course offerings will never be an impediment to student progress toward graduation. This applies to both EE and CPE/EE courses, including those that appear in different quarters on the respective flowcharts. A single section of the course is usually offered in the quarter following the designated quarter, but priority access will be given to transfer students entering EE, returning Co-op students, and students that must repeat the course from the prior quarter. Regular matriculating students should **not** take the course in this quarter, but may be accommodated on a space-available basis. Starting Spring Quarter 2009, this priority will be enforced by requiring any student who wishes to enroll in this "pickup" section to contact the EE Department Office ylynch@calpoly.edu for a permission-to-enroll number. Students in the special situations described above should make this request during the regular enrollment period. If space remains in the limited offering quarter, the section(s) will usually be opened to general on-line enrollment on PASS two weeks prior to the start of the quarter*.   However, do not plan on taking a course in any quarter other than the designated quarter on the flowchart.*

Except in cases in which the designated quarter for a required course is different between the EE and CPE flowcharts, there will never be an offering of a required course in the quarter immediately prior to the designated quarter on the flow chart (in which we promise to accommodate all students).

Although we cannot make the same promise for support courses such as math, computer science, physics and chemistry, we have received assurances from each of these supporting departments that all students will be accommodated in the designated quarters, except in extreme circumstances. If you encounter a problem enrolling in any non-EE (or non-EE/CPE) prerequisite course in the quarter specified on your flow chart, please contact the Department Office and we will make every effort to find a way for you to be accommodated in the class, or if necessary, allow a course substitution.   And as a last resort, we will identify an equivalent course offered at a local junior college that can be taken as an alternative, possibly during the summer. *We consider it of primary importance that students be unimpeded in their efforts to follow their respective flowcharts, and graduate with their class.*

For the benefit of both CPE and CSC/SE students, the Computer Science Department implements a similar course offering policy to assure that students can and will graduate in four years.

Course Prerequisites

Prerequisite requirements are specified for most major and support courses. Any technical or scientific area of study builds progressively upon prior course work. The prerequisite structure in EE (and CPE) is extensive and rigid. The Electrical Engineering Department complies with University policy, online at http://www.academicprograms.calpoly.edu/academicpolicies/Prerequisites.htm), and enforces all course prerequisites. These may consist of specific courses or their equivalents from other institutions, some with a minimum grade requirement, specific topical material, or class level. Prerequisites are specified in the University Catalog, Electrical Engineering Section http://www.calpoly.edu/%7Eacadprog/2007depts/cengr/ee_dept/eecrs2008.pdf and in each course syllabus. Course prerequisites are enforced automatically during computer registration. The PASS computer program will not allow a student to enroll in a course if they have not previously or are currently taking a prerequisite course at the time of registration.

If the student follows their respective flowchart and passes all courses, they will never have a problem with prerequisite courses. However, if courses are taken out of their proper order, it will almost surely be impossible for a student to make continuous progress toward their degree due to the very rigid prerequisite structures of the EE and CPE curricula. If a student deviates from this sequence, they will almost surely extend their time to graduation by up to a year, since enrollment in a required EE or CPE/EE course is only guaranteed one quarter each year, as discussed in the "Course Offering Policy" section. If a student fails a course, they should immediately contact their faculty adviser and/or the Engineering Advising Center to make special arrangements for a "recovery plan" to assure continued progress toward their degree.

Only under special circumstances will a student be permitted to take a course without having fulfilled the stated prerequisites. An appeal must be based upon academic merit, and should be arranged with the instructor of the course that the student wishes to take. Justification must be provided by the course instructor (only) by email to the Department Chair, requesting an exemption and stating how the student has met the topical prerequisites for the course. The student will be issued a "permission-to-enroll" number by the Dept. Office via the course instructor. However, for four-year students starting as freshmen in or after Fall Quarter 2007, all prerequisites will be strictly enforced.

Academic Advising

Students are strongly encouraged to use the extensive advisory resources available to them. There are two primary sources of advising for EE students:

The College of Engineering Advising Center http://www.eadvise.calpoly.edu/ is available on a walk-in basis 8:00 AM to 5:00 PM in Building 40, Room 115. The Engineering Advising Center assists undergraduate students with academic questions or concerns, tracks the academic and administrative progress of each student, and administers academic or administrative probation or disqualification procedures.

Every undergraduate EE student is also assigned a faculty adviser, initially based upon the first letter of the student's last name. New students are encouraged to meet with this adviser at least once, but are free to select any faculty member to serve as their adviser. The role of the faculty adviser is to provide guidance on

course content, technical elective selection, career or graduate school preparation and general mentoring. The faculty adviser serves as the primary link between the EE Department and the student. The faculty adviser also serves as the student's representative in matters requiring the attention of the EE Department Chair or the entire EE faculty. Student concerns or questions within the scope of the EE program should usually be discussed first with the faculty adviser.

Technical Electives

As part of the BSEE program of study, the student is required to select 12 units of approved technical electives including a minimum of two EE senior design laboratories and two EE senior design lectures. In general, these may be any senior (400-level) or graduate (500-level) non-core EE or CPE courses and a limited number of senior-level courses outside the major with approval of the Dept. Chair. A suggested list of acceptable senior-level technical electives is available online at http://www.ee.calpoly.edu/listing.php?lstno=23 . In the junior year, the student is required to complete a *Technical Elective Form* available from the EE Department Office with the assistance of the faculty adviser. The objective is to provide a cohesive group of courses that supports the student's specialization interests. Upon approval by the adviser and prior to the senior year, the student must submit this form to the Department office. The student then completes the selected coursework during the senior year (or during the senior and graduate years if the student participates in the BS-MSEE Honors program described below).

Senior Project

The Senior Project is one of the cornerstones of a polytechnic education, and has always been a hallmark of the Cal Poly experience. All Cal Poly EE students must complete a two-quarter senior project, EE 463 and EE 464 for EE's, or CPE 461 and 462 for CPE's. All EE students are required to complete EE 460 prior to beginning work on senior project. Generally, this sequence is completed in the senior year, either Fall-Winter or Winter-Spring. EE 460 has a number of required prerequisites: EE 314 with a C- grade or better, EE 335 with a C- grade or better, and EE 409&449 concurrently. During EE 460, a senior project proposal is developed and approved by a faculty senior project adviser selected by the student. The senior project and academic advisers need not be the same Professor.

The senior project work must be actively supervised by a faculty senior project adviser. A senior project cannot be comprised entirely of previously-completed work. It must actually be executed and completed during the quarters in which EE 463/4 (or CPE 461/2) are taken.

Only in a limited number of special cases will a student be permitted to take both quarters of senior project concurrently. The senior project adviser will assess the ability and circumstances to assure that the student can realistically complete all requirements of the senior project in a single quarter.

Students are permitted, and often do receive a grade of "RP" (Report Pending) for the first quarter (EE463) of senior project. However, students are not permitted under any circumstances to receive an "RP" or "I" (incomplete) in the second quarter of senior project. An F must be assigned and EE 464 must be repeated for credit the following quarter. If the student has not exceeded their limit for course repeat credit, the grade from the repeated course will replace the F from the prior quarter. Completion of the senior project includes the submission of the library copy of the report, payment of the university archiving fee, completion of the senior project analysis requirement, and formal approval of the project by the faculty adviser – please see the EE Senior Project Handbook online at http://www.ee.calpoly.edu/media/files/sphand.pdf . This policy has been in place in EE for over 15 years to assure that students complete their senior project within the time they are enrolled in the course. A student cannot graduate until they have completed their senior project.

Co-operative Education (Co-op)

The Co-op experience is considered by many employers as a significant enhancement to the value of a BSEE degree. Beginning in the sophomore year, a student may take a 3 quarter sequence under course number 493, 494 or 495 for credit while employed by a qualifying employer. Co-op assignments of different durations are allowable, but will put the student out-of-sequence with the course prerequisite sequence and curriculum flowchart, causing possible delays in graduation.

The co-op must be arranged in advance through the Cal Poly Cooperative Education Office http://www.careerservices.calpoly.edu/Students/Coop/co-op-engr.htm . Not all employers or assignments qualify – all employers participating in the co-op program complete a contract with Cal Poly in which the company commits to providing an educational experience for the student, under the joint supervision of the employer and a Cal Poly faculty member (usually the Dept. Chair). The EE Department enforces this arrangement and will intervene if the employer fails to provide a qualifying educational experience.

Students should be cautioned that electing a co-op experience will extend the time to graduation. Co-op credit is usually considered "free-elective credit" that does not help the student make progress toward their degree. However, the EE Department allows up to four units of co-op credit to be used to satisfy technical elective requirements if a full three-quarter coop is taken. Please contact the Department Office or Co-op Office for details. If all requirements prior to the senior project are met, it is possible for a student to either partially or fully complete their senior project while on a co-op assignment, *but only if special arrangements are made prior to the start of the co-op*. Your faculty adviser, the Department Office, or the Engineering Advising Center can provide further information on such an arrangement. The use of co-op work, or any prior work completed entirely prior to enrollment in the senior project course sequence is never permitted.

The Master of Science in Electrical Engineering

The Electrical Engineering Department offers the Master of Science in Electrical Engineering (MSEE) degree. This program requires completion of 45 units beyond the BSEE degree, 28 units at the graduate (500) course level. A thesis is usually required, although a non-thesis option is also possible. Please see the Cal Poly Catalog http://www.calpoly.edu/~acadprog/2007depts/cengr/ee_dept/ee_ms.pdf or contact the Graduate Program Coordinator or EE Department Chair.

 A MS degree in Computer Engineering is currently under discussion but not yet implemented. Please contact the Computer Engineering Program Director for status.

Blended (4+1) Masters Degree Honors Program

Students with a Cal Poly cumulative GPA of at least 3.5 in their junior year are invited to participate in the 4+1 program, a special arrangement that permits completion of the BSEE and MSEE degrees in a total of five years. A key feature of this program is the use of Masters Thesis research to concurrently meet senior project requirements. This program also allows students more flexibility in selecting desired technical electives, some of which may not be offered every year. Student with GPA's between 3.0 and 3.5 may apply for admission to this program under special circumstances. For more information, please see http://www.ee.calpoly.edu/listing.php?lstno=19 or contact the Graduate Program Coordinator or the EE Department Chair