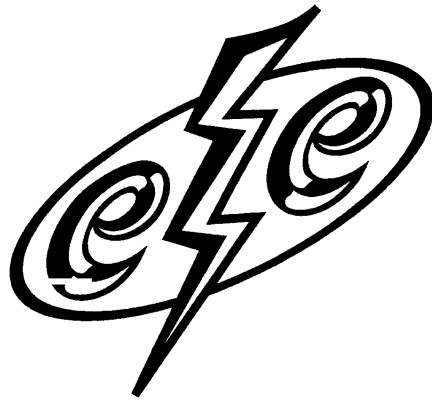


ELECTRICAL ENGINEERING DEPARTMENT
California Polytechnic State University
San Luis Obispo, California



MASTER OF SCIENCE
IN ELECTRICAL ENGINEERING
HANDBOOK

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I. Introduction

All students should become familiar with the Graduate Studies and the Electrical Engineering Department sections of the Cal Poly Catalog, which give information pertinent to graduate students in the EE Department. Students are responsible for ensuring that they meet all guidelines and criteria of the program, including all graduation requirements.

This handbook supplements the catalog and should not be interpreted as replacing or superseding catalog information.

Students who are pursuing the MSEE degree under the Joint BS/MS Honors Program should consult the separate handbook for that program.

II. Application

Application forms are available from the Admissions Office of any CSU campus. Parts A and B of the application should be sent to the Cal Poly Admissions Office. An on-line application can be filled out and submitted through the Cal Poly Web site (www.calpoly.edu/~rgp). An electronic version of the CSU graduate application is available at the CSU Web site (www.csumentor.edu). Foreign applicants must have satisfactory scores on the TOEFL and TWE exams.

The following additional items are required for completion of the application:

- Certified transcripts from all schools attended.
- GRE (General Test) scores.
- Three letters of recommendation submitted directly to the Electrical Engineering Department.

An applicant must hold a bachelor's degree in engineering or a closely related physical science with a minimum grade point average of 3.0 in the last 90 quarter units (60 semester units) attempted.

Refer to the Cal Poly catalog for application completion date deadlines.

III. Admission

The two categories of admission are:

- *Graduate Classified* - This is the normal admission category for applicants who meet all admissions requirements and have no deficiencies of preparation.

- *Graduate Conditionally Classified* - This admission category may be used for applicants who have not met all the normal admission requirements and certain conditions must be met. Students are responsible for ensuring that these conditions are satisfied. An example would be an applicant who lacks some undergraduate EE coursework in which the conditions would include taking this coursework as a prerequisite. Students are responsible for ensuring that these conditions are met

IV. General Academic Guidelines

The EE Department has a faculty member designated as the Department's Graduate Coordinator. Although you are encouraged to seek advice and consultation from any faculty member, the Graduate Coordinator is your official program advisor and he/she must approve and sign off on all Study Plans, Study Plan changes, petitions for special consideration, etc.

It is expected that you will be registered at Cal Poly each quarter until you obtain your MSEE degree (Summer quarter excepted). If you have some special circumstance that requires a break in your studies, contact the Graduate Coordinator about this matter. Except for these special cases, if you do not register continuously (except Summer) or register but fail to take coursework applicable to your MSEE degree objective, you may be dropped from the Graduate Program and will need to reapply for admission.

All students must satisfy the Graduation Writing Requirement and you are advised to do this during the first quarter. Failure to complete this requirement will prevent you from obtaining Advancement to Candidacy (as well as subsequent graduation). See the Cal Poly catalog for more details on this requirement.

During your first quarter you are asked to file an Informal Study Plan with the EE Department. This does not require any approval but serves to provide the department with information concerning your course needs. This form is available in the EE Department Office, and worksheet copies for both the thesis and non-thesis options are displayed in Appendix A of this handbook.

You should submit a Formal Study Plan typically during the second term of residency towards the MS degree (the forms are available from the EE Department Office and a worksheet copy is provided in Appendix B). Refer to the Cal Poly catalog and section V of this handbook for more details on the requirements.

You are required to maintain an overall GPA of 3.00 or higher in all coursework on your Formal Study Plan. Courses taken for credit/no credit (except for EE 563) cannot be used in the Formal Study Plan, but may be taken as prerequisites or as supplemental coursework. Courses with grades of D+ or lower are not acceptable in fulfillment of the Formal Study Plan and may be retaken; however, both grades are included the calculation of the GPA.

When you have an approved Formal Study Plan on file, have satisfied the writing requirement, and have a 3.00 GPA or better in at least 20 units of the Formal Plan, you should file for

Advancement to Candidacy. This should occur prior to the last quarter in residency as you cannot take the comprehensive exam (non-thesis), or apply for graduation unless you are a Candidate for the degree. The Advancement to Candidacy form can be obtained from the EE Department Office and submitted to the Graduate Coordinator. A worksheet copy is provided in Appendix E.

You must file a Request for Graduation Evaluation with either the Evaluations Office or the Records Office. This should be done in sufficient time to permit a review of your program and to let you know of any deficiencies before the quarter of graduation. If you fail to complete the needed requirements by the end of the quarter that you applied to graduate, it will be necessary for you to resubmit another application with your new timelines. A worksheet copy is provided in Appendix F.

V. The Formal Study Plan

The major element of the Formal Study Plan is a display of your intended courses to satisfy the MSEE degree requirement (the Formal Study Plan will henceforth be referred to as the “Plan”). You are advised to review the catalog and this handbook as well as the proposed schedule of course offerings before working on a proposed Plan. You may also wish to consult with faculty and the Graduate Coordinator prior to submission. The Plan should be submitted to the Graduate Coordinator no later than the end of the second quarter of residency. The Graduate Coordinator must approve the Plan before sending it for approval to the College of Engineering and the University Graduate Studies Office. The Plan form may be obtained from the EE Department Office and a worksheet copy is displayed in Appendix B of this handbook.

Changes to the Plan may be made after its initial submission and approval by filing an Amendment to the Formal Study Plan. This form may be obtained in the EE Department Office and must go through the same approval cycle as the original Plan. See Appendix C for a worksheet copy. If extensive changes are involved, it may be easier to file a new Plan.

Some points on the Plan to keep in mind are:

- It must have at least 45 quarter units (at least 28 of which must be at the 500 level and the remainder must be no lower than 400 level courses). If you pursue a Plan that includes a thesis, 9 units of the Plan will be in EE 599.
- At least 32 units of the Plan must be completed in residence. This means that up to 13 units from another university could be accepted. A petition for their transfer should be approved prior to their inclusion on your Plan.
- Up to 12 units of coursework taken as an undergraduate, but not used to fulfill the undergraduate degree, may be used in the Plan. A petition for their use needs to be approved prior to their inclusion in your Plan.
- The only “required courses” in the Plan are 3 units of Graduate Seminar (EE 563, one unit each of three quarters) and EE 525.

- Inclusion of courses in the Plan from technical support areas such as Math, Physics, and Computer Science are encouraged but should not constitute more than 17 units of a 45 unit Plan.
- The most important point is that the Plan as a whole must “make sense”—for example, electives should support some technical objective.

Supervisory courses EE 599 Thesis and EE 500 Individual Study are offered as required. You must have a supervisory faculty member for these courses and contact the EE Department Office for registration codes.

In the construction of your Plan, you are encouraged to consult the planned annual schedule of course offerings by the EE Department and any other department you feel will contribute courses to your Plan.

VI. Thesis

The thesis option is strongly recommended for students. You need to have a thesis committee of at least three faculty members. One of these members will be your primary thesis advisor and will be the Chair of your thesis committee. Selection of the other two members should be done in consultation with your thesis advisor. One member of the committee is frequently from a support department outside the EE Department (such as Math, CSC, etc.) A Thesis/Project Committee Membership form may be obtained from the EE Department Office and a worksheet copy is displayed in Appendix G of this handbook.

The thesis units are offered in 2 and 5 unit increments. Normally, the thesis is taken in a 2,2,5 sequence for a total of 9 units. It is important that you do not sign up for thesis units unless you have clearly defined the work involved, have a faculty member willing to serve as your advisor, and have the necessary support (financial, equipment, etc.) to complete the project.

A presentation of the defense of your thesis must be scheduled prior to submission for final approval. The presentation must have the members of your committee present. The policy of the EE Department is to make the presentation open to other faculty and students. Announcement of the presentation should be made by e-mail at least one week in advance.

A copy of the Guidelines for Completing Graduate Theses and Reports should be obtained from the EE Department Office or the Graduate Studies Office. Consult with the Graduate Studies Office on the approval process for the thesis format.

VII. Comprehensive Exam

If you have a non-thesis Study Plan, you must take a Comprehensive Exam on your coursework. The Comprehensive Exam would normally be taken during your last quarter in residence, and

you should inform the Graduate Coordinator of your intention to take the exam the quarter before you take the exam. The Graduate Coordinator will inform you of the format of the exam.

VIII. Department Facilities Available to Graduate Students

Graduate students who are working on a thesis and/or special projects may be assigned workspace in one of the EE Department labs. Students who are working on sponsored projects will typically work in the area assigned for that project – in some cases this would be in the ATL research facility. All graduate students may have access to the graduate room (20-136) with priority given to Teaching Associates for office hours and lab preparation.

IX. Financial Assistance Available to Graduate Students

The EE Department typically has a number of Teaching Associate (TA) positions used to staff some selected undergraduate laboratories. Only graduate students who are taking coursework for their MS degree in EE will be appointed to these positions. Applications for the positions should be submitted to the EE Department Office.

Sponsored research by departmental faculty frequently employs graduate students in the conduct of the research. Check with the EE Department Office and individual faculty members on the availability of these appointments.

The Graduate Studies Office at Cal Poly administers some financial aid programs.

You may apply for Student Aid or Cal Poly Scholarships at the Financial Aid Office of Cal Poly.

X. Checklist

All forms required are available at the EE Department Office. Except for the Informal Study Plan and Request for Graduation, all forms should initially be turned in to the Graduate Coordinator.

Students are responsible for initiation, completion and submission of necessary forms.

- First quarter—fill out *Informal Study Plan* and submit to the EE Department Office
- Second quarter—consult with Graduate Coordinator and file the *Formal Study Plan*. Submit the Plan to the Graduate Coordinator—you should receive a copy of the Plan when all approvals have been obtained.
- After the following conditions have been met, file for *Advancement to Candidacy*.
 - Graduate writing exam requirement satisfied.
 - An approved Formal Study Plan
 - At least 20 units of Formal Study completed with a GPA of 3.00 or better.
 - Conditions of admission must be met (if applicable).
- Quarter prior to graduation—*Request for Graduation Evaluation*.
- Three weeks prior to thesis defense, complete and submit *Thesis/Project Committee Membership* form to the EE Department Office;

OR

- Take the comprehensive exam if the Formal Study Plan does not contain a thesis. Three weeks prior to comprehensive exam, complete and submit *Request for Masters Comprehensive Exam* form to the EE Department Office.

APPENDIX A

Informal Study Plan - Thesis Option

Informal Study Plan - Non-Thesis Option

APPENDIX B

Formal Study Plan

APPENDIX C

Amendment to Formal Study Plan

APPENDIX D

Petition for Special Consideration

APPENDIX E

Advancement to Candidacy

APPENDIX F

Request for Graduation Evaluation

APPENDIX G

Thesis/Project Committee Membership

APPENDIX H

Guidelines for Master's Comprehensive Exam - DRAFT

Request for Master's Comprehensive Exam - DRAFT