1. Introduction

Welcome to San Diego State University! Every classified graduate student admitted into the Electrical and Computer Engineering at San Diego State University can obtain an MS degree by following two options: Plan A (thesis option) or Plan B (non-thesis option).

Plan A: Thesis Option

Students selecting Plan A must complete 21 units of coursework (7 courses), 6 units of EE 797 "Research" (typically as two 3-unit EE 797 “Research”, taken in two different semesters) under supervision of a full-time ECE faculty, and, after advancement to candidacy, 3 units of EE 799A "Thesis". A completed thesis in a required format shall be submitted to the department and the university. An oral defense of the thesis is required. Credit for EE 797 will be given only after completing the oral defense. Plan A students cannot receive credit for taking EE 798.

Plan B: Non-Thesis Option

Students selecting Plan B must complete 30 units of approved coursework (10 courses) and must pass a written comprehensive examination. EE 797 cannot be used as one of the courses required for graduation for Plan B students.

2. Program of Study (POS)

Before meeting with the department Graduate Advisor, each classified student should prepare a Program of Study (see ECE Department Office or department web site regarding forms) using the work plan given at the end of this document. This guidelines given below should be followed when preparing the POS:
General

Every classified graduate student must complete 30 units either by selecting Plan A or Plan B. Eighteen of the 30 units should be 600 and 700 level courses in electrical engineering. Students in Plan B cannot use EE 797 as one of the required courses for graduation. Credit is not given for EE 798 for Plan A students. The remaining 12 units can come from 500, 600 or 700 level courses from the Department of Electrical and Computer Engineering. Students can take only one course from other departments in the College of Engineering or from the College of Sciences to satisfy these requirements; with the prior approval of the Graduate Advisor and recommendation of the student’s thesis advisor (for Plan A students). The POS is required for enrolling in the comprehensive exam, advance to candidacy and reduce course load.

Plan A: Thesis Option

- Core Course: Select a required core course for the chosen depth area (taken within the first semester).
- Depth Area Courses: Four courses from a depth area declared by the student. One course may be taken from other departments in the College of Engineering or College of Sciences.
- Breadth Area Courses: Each classified graduate student in Plan A is required to complete, with approval of the Thesis Advisor and the department Graduate Advisor, at least one course from two subject areas other than the depth area

Plan B: Non-Thesis Option

- Core Course: Select core course required for the selected depth area (taken within the first semester)
- Depth Area Courses: Five courses from depth area declared by the student
- Breadth Area Courses: Each classified graduate student in Plan B is required to complete, with approval of the department Graduate Advisor, at least two required courses from two subject areas other than the depth area

3. Transfer Courses

Up to three courses (9 units) may be transferred from another institution, another department or San Diego State University Extended Studies program. All credit earned in other universities including foreign universities and San Diego State University extension courses are subject to approval by the Graduate Advisor and Graduate Dean. Credit earned by correspondence, by examination, or by extension at other institutions is not accepted as satisfying advanced degree requirement.

4. Grade Point Average/ Grades

Grade Point Average of at least 3.0 (B) must be maintained in:
● All courses listed on the official degree Program of Study
● All courses, 300-level and above, taken at San Diego State University concurrently with or subsequently to the earliest course listed on the official degree program, including the courses accepted for transfer credit.

Furthermore, students should be aware of the university restrictions for the degree program. They are:

● No transfer or extension credit may be used to improve the grade point average of the courses completed at San Diego State University whether computed to determine the average or the overall average.
● No grades in which final grade below “C” (2.0) was earned may be used to satisfy the requirements of the master’s degree.
● 500 level courses graded Credit/No Credit are not acceptable to satisfy the master’s degree program unless they are offered as Credit/No Credit courses only.
● At least 70 percent of the units used to fulfill the minimum requirements on master’s degree program must be letter graded.
● A course completed prior to seven years of the date that the official master’s degree program is approved cannot be listed on the program

5. Advancement to Candidacy

A student is eligible for Advancement to Candidacy after having completed at least 12 semester units of the Official Program (POS) with a GPA of 3.0 or better. In addition, the student must have completed all the undergraduate deficiencies, been recommended for Advancement of Candidacy by the Graduate Advisor; and approved for Advancement to Candidacy by the Graduate Council.

6. MSEE Comprehensive Examination (Plan B)

The MSEE Comprehensive Examination is required for all Plan B students. The examination questions will test the student’s understanding and mastery of fundamental principles in the area of specialization and the ability to apply these principles to engineering problems. These questions also test the student’s ability to communicate effectively using mathematical equations, graphs, and correctly constructed prose. The intent of the comprehensive exam questions is to ascertain the student’s ability to recall, integrate, and apply basic principles taught during their graduate studies.

The MSEE Comprehensive Examination is offered once each Fall and Spring semesters. The date, time, and place will be announced within the first three weeks of the semester. In order to take the comprehensive examination, a student must register with the ECE Department Office after the third week of the semester and at least two weeks before the exam date. A student may not register for this examination until being advanced to candidacy.

The comprehensive examination is closed books and closed notes. The examination coordinators may distribute equations sheets at the time of the exam. These equations sheets may be useful,
but are not all inclusive of those needed to solve the problems. The comprehensive examination format is subject to changes and updates and it is the responsibility of the graduate student to check the ECE Department web site regarding any changes, prior to taking the examination.

The comprehensive examination will be graded by the ECE Department’s professors for technical correctness, completeness, and clarity of expression. If after two unsuccessful attempts, the student may not take the comprehensive examination again without written permission from the department Graduate Advisor. The Graduate Advisor, at that time, may require the student to successfully complete certain additional courses before taking the comprehensive examination a third and final time. If a student fails the third time, the student fails the MSEE degree requirements and is then dismissed from the program.

More information about the subject areas and suggested topics to study can be found on the ECE Department web site (electrical.sdsu.edu) under the Graduate Students information link.

7. Procedure for Enrolling in EE 797 Research or EE 798 Special Study

1. In consultation with a full-time ECE Department faculty member, define your project. Only graduate students who have completed one semester and are in good academic standing may enroll in EE 797 or EE 798.
2. Decide on a title for your project.
3. Write an outline proposal of the project or research to include goals, design activities, level of effort, and timetable.
4. Pick up the appropriate form from the ECE Department. Take this form and the proposal to your supervising instructor for their review and signature of approval. Instructor's approval means that facilities and his/her time are available to support the project.
5. Bring this form along with the POS and the proposal to the Graduate Advisor for approving signature. Graduate Advisor’s approval states that all requirements have been met and recommendation for the student to take research or project.
6. Submit the form and proposal to the ECE Department office for final approval by the Department Chair.

8. Procedures for Thesis (Plan A)

All students presenting a thesis must follow the procedures discussed below. The procedures listed below are presented in the order to be accomplished, although some procedures may be handled concurrently.

1. Establish the thesis committee and title in consultation with your Faculty Advisor.
2. Pick up the Appointment of Thesis/Project Committee form from the Graduate Division. (Student must have an approved Program of Study on file.)
3. Obtain the signatures of committee members then turn form into the ECE Department Office for the Graduate Advisor’s signature.
4. Once all signatures are obtained, turn in the Appointment of Thesis/Project Committee form to the Graduate Division. (Note: Student must be advanced to candidacy in order to turn the form in.) Graduate Division will then contact you to enroll into Thesis EE 799A.
5. File an Application for Graduation in the Cashier’s Office.
6. Read and follow formatting regulations.
7. Write and Edit the Manuscript.
8. Submit a Report of Final Examination or Thesis Defense for and signature page to the ECE Department Office
9. Submit the Manuscript for Format Review
10. Go Through the Format Review Process
11. Submit Approved Manuscript for Thesis Processing to Montezuma Publishing

For details, please refer to the website: [http://gra.sdsu.edu/](http://gra.sdsu.edu/).

9. Curricular Practical Training (CPT)

**Background**

Curricular practical training is defined as any required or optional internship that is an *integral* part of the established curriculum for a program of study. Only internships that are directly related to the course curriculum qualify as curricular practical training and can be either an optional or required part of the program.

**General Requirement**

Be in good standing by having a SDSU, overall and program GPA of at least 3.0 and has made progress towards the degree. Note that progress towards the degree implies that a student has his/her Program of Study (POS) on file and has not failed the Comprehensive Exam (Plan B) or must enroll in EE 799B to complete the thesis (Plan A).

**Summer CPT**

The student must have completed at least 18 units of coursework and enroll in EE795 (one unit) in one of the summer sessions. Students may sign up for up to 40 hours per week during summer. Out-of-state internship locations are allowed during summer.

**Academic Year CPT**

In an academic year, students who meet the General Requirement mentioned above and the criteria below can work only 20 hours per week, unless they have passed 30 units and passed the Comprehensive exam (Plan B) or have a written consent from their thesis advisor (Plan A). The following criteria are the requirement for 20 hours per week CPT:

- For Plan A students: Have received a satisfactory grade in at least 21 units of coursework in the Program of Study and a RP or CR in 6 units of Research. Have at least 75% of the thesis report completed. This will require *written approval* by the thesis advisor to the Graduate Advisor. Students who enroll in EE799B are not qualified for the CPT because progress towards the degree is not met.
For Plan B students: Have received a satisfactory grade in at least 27 units of coursework in the Program of Study. Students who have failed the Comprehensive Exam are not qualified for the CPT because progress towards the degree is not met.

- If the student has completed his/her required number of units according to the Program of Study, they must register for EE 795 (one unit).
- The location of the internship must be at the driving distance from SDSU during an academic year.

Please note that for using the CPT in each semester (including summer), you need to obtain separate offer letters stating the beginning and ending dates of the internships. Please look at SDSU Academic Calendar to indicate the correct beginning and ending dates of each semester.

**Content of the Offer Letters**

Offer letter must contain the beginning and ending dates of the internship, the job description and the pay rates (per hour). The letter must be original and written on the letterhead of the company. For each working period (summer, Fall or Spring semester) a separate letter must be provided.

**Application and Processing Time Periods**

There is no specific application period for the CPT. Students who satisfy the aforementioned requirements must allow enough time after obtaining the job offer for administrative processes as follows:

- Give the offer letter to the ECE department office. The Graduate Advisor will review the letters and makes decision on whether the student satisfies the requirements or not. If the student is eligible for the CPT, the Graduate Advisor will write the recommendation letter.
- Once the recommendation letter is ready, you will be notified by the department office. Then you can enroll in EE 795 (adding after the add/drop deadline will require a petition to add EE 795 late and could take an additional 7-10 business days)
- Contact the International Student Center (ISC) for an appointment (619-594-1982)
- Pick up the recommendation letter from the ECE office and take it, along with a valid passport, I-94 Form, SEVIS I-20, complete address of the company and, if possible, the job offer letter to ISC for final approval (2-3 business days).

Plan ahead as there are no same day appointments and the process could take as long as 5-7 business days! The employment may not begin until the training has been authorized. **Under no circumstances will the CPT be backdated to include illegal work done before it was authorized.** SDSU follows the United States Immigration Law on the CPT. For more information about the law please see the Immigration and Custom Enforcement website.

Additional information may be found on the International Student Center web site http://www.isc.sdsu.edu/.