

## **MASTER OF SCIENCE**

### Degree Requirements and Completion

The Master of Science (M.S.) programs are research oriented and are intended to provide the intensive technical preparation necessary for advanced technical work in the engineering profession or subsequent pursuit of a Ph.D. The Master of Science (M.S.) degree may be earned either with a thesis (Plan I) or with a written comprehensive examination (Plan II).

**\*\*See an ECE Graduate Student Affairs Advisor to obtain the relevant forms and check submission deadlines and process\*\***

### **Course Requirements:**

The *Application for Candidacy for the Thesis or Comprehensive Examination Plan I or II, for the Degree of Master of Arts or Sciences* form **must be filed no later than the second week of the quarter in which degree requirements are to be completed.** **NOTE:** this is especially important as late filing of this form may jeopardize your commencement participation. Ideally, you will complete at the time of registration in the last of "core" courses.

- Choose Plan I (thesis) or Plan II (comprehensive exam).
  - 1) Students electing Plan I (Thesis) - must take twelve units of ECE 299 (Research) and must submit a thesis as described in the general requirements of the University (only 8 units of ECE 299 may count toward the course requirements). You must declare your intent to do Plan I (thesis) no later than the end of the Fall quarter of your second year of study.
  - 2) Students electing Plan II (Comprehensive Exam) - must plan to take the written exam no later than the end of the Fall quarter of your second year of study. Students in Plan II may only count 4 units of ECE 299 (Research) toward the course requirements. Students who pass the written examination at the M.S. level will receive a terminal Master's degree. Students who fail the written examination twice will not receive the terminal Master's degree.
- The total course requirements are 48 units, of which at least 36 units must be in graduate courses. The course requirements must be completed within two years of full-time study. Refer to your *Degree Planner* form, which may be obtained from the Graduate Student Affairs office or the ECE website (if you have not done so, complete a M.S. / Ph.D. Degree Planner form).
  - 1) Plan I (thesis) – credits must be distributed as follows:
    - i. At least 12 units in graduate courses in the major field,
    - ii. 6 additional units in graduate courses,
    - iii. 12 units in graduate or upper-division courses, and
    - iv. 6 research units leading to a master's thesis.
  - 2) Plan II (comprehensive examination) – credits must be distributed as follows:
    - i. At least 14 units in graduate courses in the major field,
    - ii. 10 additional units in graduate courses, and
    - iii. 12 units in graduate or upper-division courses.
    - iv. 4 units of ECE 299 may be counted.
- The 48 units of required course work must be taken for a letter grade (A-F), except for graduate research (e.g., ECE 298, 299) for which only S/U grades are allowed.

- Courses for which a D or F is received may not be counted.

- You must have a GPA equivalent to 3.0 overall or above in upper division and graduate course work undertaken, with a total of no more than eight units of "F" and/or "U" grades.
- You must be registered in the quarter in which the degree is to be awarded.
- The minimum residence requirement is 3 academic quarters; AT LEAST ONE of which must follow advancement to candidacy.

## **Thesis and Comprehensive Examination Requirements:**

The *Final Report of the Thesis or Comprehensive Examination (Plan I or II) for the Degree of Master of Arts or Science and Graduate Degree and Diploma Application* forms **must be submitted by Friday before the last day of Fall and Winter quarters, and one week earlier for Spring quarter.**

### **Plan I – Thesis**

Following advancement to candidacy, students electing Plan I must submit a thesis as described in the general requirements of the University.

Information covering thesis preparation is contained in the publication, *Instructions for the Preparation and Submission of Doctoral Dissertations and Masters' Theses*, which can be found on the web site [http://ogs.ucsd.edu/files/academic-affairs/Dissertations\\_Theses\\_Formatting\\_Manual.pdf](http://ogs.ucsd.edu/files/academic-affairs/Dissertations_Theses_Formatting_Manual.pdf). The completed thesis is submitted to the thesis committee for review.

When all members of the committee have approved the thesis at the conclusion of your defense, you must pay the Thesis Submission Fee at the Cashier's Office before submitting the *Final Report and Graduate Degree and Diploma Application* forms, together with your thesis, to the Graduate Division. Upon approval by the Dean of Graduate Studies, you must file the thesis with the university archivist who accepts it on behalf of the Graduate Council. Acceptance of the thesis by the archivist with a subsequent second approval by the dean of Graduate Studies represents the final step in the completion of all requirements for a Master of Science degree.

Speak with an Advisor at the ECE Graduate Student Affairs office for assistance in organizing your thesis defense. You must declare your intent to do Plan I (thesis) no later than the end of the Fall quarter of your second year of study.

### **Plan II – Comprehensive Exam**

Following advancement to candidacy, students who select Plan II must pass the departmental written comprehensive exam not later than the end of the fall quarter of their second year of study. The written exam will be offered only once every year. It will always be given in the first few weeks of the fall quarter. You will be asked to sign up for the comprehensive exam during the previous Summer.

This exam covers a broad range of topics at the undergraduate level plus a single depth topic (must be your graduate major area of study) at the graduate level. Please refer to the ECE website ([http://www.ece.ucsd.edu/ms\\_comp\\_exam](http://www.ece.ucsd.edu/ms_comp_exam)) for further information.

Plan II students file the *Final Report and Graduate Degree and Diploma Application* forms upon passing the comprehensive exam. You will only have two chances to take and pass the Plan II Comprehensive Exam (Fall & Spring of the second year of study)

- If not taken/passed in the Fall quarter of the second year of study, then the following Spring quarter will be the final opportunity to pass the written Comprehensive Exam
- Students who fail the written examination twice will not receive the terminal Master's degree.