

COMPREHENSIVE EXAMINATION FOR M.S. STUDENTS

The Master of Science (M.S.) degree may be earned either with a thesis (Plan I) or with a written comprehensive examination (Plan II). This document outlines the procedure for M.S. students who select Plan II (written comprehensive exam).

Students must select Plan I or Plan II by the start of Fall quarter of their 2nd year of study (full time students) or the next exam opportunity after a student has attempted 36 units (part-time/half-time students). The written exam will be held every Fall quarter and the following Spring quarter on an as-needed basis.

Course Requirements

- A total of 48 units, of which 36 units must be in graduate courses. (Note: this is greater than the minimum requirements of the university, which is a total of 36 units.) Refer to the degree planner form for your discipline area for a list of core courses from which the 36 graduate course units must be selected.
- The course requirements must be completed within two years of full-time study. Your faculty advisor will help you select courses and approve your overall academic curriculum.

Scholarship Requirements

- The 48 units of required course work must be taken for a letter grade (A-F), except for graduate research (e.g., ECE 299) for which only S/U grades are allowed.
- Courses for which a D or F is received may not be counted.
- You must maintain a GPA of 3.0 overall or above in upper division graduate course work undertaken, with a total of no more than 8 units of "F" and/or "U" grades.

Comprehensive Requirements

- You may count four units of ECE 299 (Research) toward the thirty-six graduate units required.
- You must pass the written comprehensive exam no later than the end of the Spring quarter of your second year of study.

Advancement to M.S. Candidacy

You must file the *Application for Candidacy for the Thesis or Comprehensive Examination Plan I or II, for the Degree of Master of Arts or Science* form no later than the second week of the quarter in which course requirements are to be completed. Ideally, you will complete the form at the time of

registration in the last of your “core” courses. See an ECE Graduate Student Affairs Advisor to obtain the relevant form.

NOTE: At least one quarter must lapse between advancement to candidacy and passing the comprehensive exam. The minimum residence requirement is 3 academic quarters.

EXAM PROCEDURES

Initial Preparation

- Plan to take the written exam no later than the end of the Fall quarter of your second year of study.
- Review the practice questions, which are posted on the ECE website:
http://www.ece.ucsd.edu/ms_comp_exam
- You must sign up for the exam by the deadline, which is posted on the ECE website:
http://www.ece.ucsd.edu/ms_comp_exam
- Complete and submit the following forms to the ECE Graduate Student Affairs office no later than the Wednesday of second week of the quarter in which course requirements are to be completed:
 - Application for Candidacy for the Thesis or Comprehensive Examination Plan I or II, for the Degree of Master of Arts or Science
 - Final Report of the Thesis or Comprehensive Examination (Plan I or II) for the Degree of Master of Arts or Science
 - Graduate Degree and Diploma Application
- Complete and submit the following forms to the ECE Graduate Student Affairs office either prior to your examination date or prior to graduating.
 - ECE Program Exit Questionnaire
 - Alumni Form

Exam Format

The exam format is a written exam covering a range of topics at the undergraduate level plus a single topic covered at the graduate level (must be your graduate area of study).

The topics are Mathematics (**required**) plus the student’s choice, during the exam, of any two of the following:

1. Electricity & Magnetism,
2. Signals & Systems,
3. Solid State Electronics,
4. Electronic Circuits & Systems, and
5. Logic Design,

Plus one of the following depth topics, specified by the student at sign-up:

- i. Applied Ocean Sciences
- ii. Applied Physics / Electronic Devices & Materials
- iii. Communication Theory & Systems

- iv. Computer Engineering
- v. Electronic Circuits & Systems
- vi. Intelligent Systems, Robotics and Control
- vii. Nanoscale Devices & Systems
- viii. Photonics
- ix. Radio & Space Science
- x. Signal & Image Processing

Students must pass 3 of the 4 sections to pass the exam; Math is a mandatory pass.

The written exams are 4 hours in duration, and they will be held on a Saturday, on the **third or fourth week** of the Fall quarter. Please refer to the ECE website for the exact date and time for the exams: http://www.ece.ucsd.edu/ms_comp_exam

Results of the Exam

1. The examination committee will determine the outcome of the written examination to be one of the following:
 - i. Pass - students will receive a terminal Master of Science degree;
 - ii. No Pass - students are given two chances to pass the exam. Students that do not pass the exam on the 2nd attempt will not receive the terminal Master of Science degree.
2. Notification of exam results will be conveyed via email to you shortly after the exam.

Completion of the M.S. degree

1. The M.S. degree will be awarded in the same quarter that you pass your comprehensive exam, as long as you advanced to M.S. candidacy no later than second week of the same quarter. NOTE: You must be registered in the quarter in which the degree is to be awarded.
2. You will receive a letter confirming that you have successfully completed the M.S. degree requirements at the end of the same quarter.
3. Your diploma will be mailed 3-6 months after the end of the quarter. The diplomas are mailed directly to your permanent mailing address. Therefore, you must check your address for accuracy on TritonLink (<http://tritonlink.ucsd.edu/>) to avoid delays in delivery.
4. The Academic Computing Services (ACS) automatically extends the closing date of accounts belonging to students who applied to graduate. Students who have applied to graduate are sent an e-mail notice with details about the extension which is for approximately 60 days. Please take the following steps before you graduate to preserve your valued computer files and to minimize the risk of missing e-mail sent to you:
 - i. Arrange for a new e-mail account through the UCSD Alumni Association, an off-campus ISP, an employer, or a new educational institution.
 - ii. Redirect mail addressed to <username>@ucsd.edu to your new account. When you leave the University, ACT will continue to forward e-mail sent to your @ucsd.edu address for up to one year.
 - iii. Move copies of your important computer files to portable media, your home computer or another computer account.

iv. Ask ACS to delete your account from student/instructional systems. To do this login to your account BEFORE IT CLOSES and send a message to acs-consult@ucsd.edu requesting that your account be deleted.

Please visit the following website for further information: <http://acs.ucsd.edu/account-tools/account-status.php>

5. UCSD conducts one commencement ceremony each year at the end of Spring quarter. In order to participate in commencement, you must have completed all degree requirements. NOTE: Late filing of master's advancement to candidacy forms may jeopardize your commencement participation; for this reason, it is especially important to file master's advancement to candidacy forms no later than the second week of the quarter.

Degree Completion Notes:

Filing Deadlines: The deadlines for filing the *Final Report* is on the Friday before the last day of Fall and Winter quarters, and one week earlier for Spring quarter.

Filing between Quarters: Registration will be waived if you are completing between quarters, as long as you were registered in the previous quarter. A filing fee will be assessed. The M.S. degree will be conferred at the end of the following quarter.

Filing Fee: If you are on an approved leave of absence and have completed all requirements (including submission of *Application for Candidacy for the Thesis or Comprehensive Examination Plan I or II, for the Degree of Master of Arts or Science* while enrolled) except the written comprehensive exam, you may petition to pay a filing fee (one half of the registration fee) in lieu of full registration fees. Cashier validated General Petition must be submitted with your *Final Report* form.

Summer Degrees: If you are completing your degree requirements during the Summer and you were enrolled in the previous Spring quarter, you do not pay any additional fees but must file a General Petition to waive registration between quarters. If you are completing your degree requirements during the Summer and you were on leave of absence in the previous Spring quarter, you will pay the filing fee for completion and will also need to file a General Petition to complete between quarters. OGS publishes a schedule of specific deadline dates for Summer degrees at the end of each Spring quarter.

Registration in the Final Quarter for the Award of the Degree: If you only need to take the written comprehensive exam, you may pay a filing fee (\$179, to be paid to the Cashier's office) in lieu of registration in the final quarter, if you previously submitted the *Application for Candidacy for the Thesis or Comprehensive Examination Plan I or II, for the Degree of Master of Arts or Science*.