

Guide to the MS Comprehensive Exam

Each student must organize their exam. Follow the steps below.

1. **Create your committee** – In the quarter prior to your exam quarter, identify a permanent, full-time CE/ENVE professor who agrees to be your committee chair. Work with the committee chair to find two additional professors or lecturers in the department to serve on the committee.
2. **Schedule your exam** – The exam must be scheduled in your penultimate quarter or your final quarter as a student. The catalog specifies that the exam must be taken in your last quarter, but scheduling in the penultimate quarter allows for re-taking of the exam if failed the first time. A repeat of the exam will take place no sooner than the quarter following the failed exam. Summer term exams are allowed in principle, but the committee is unlikely to be available and additional tuition must be paid.
3. **Submit the Graduate Program Committee Form** – Print this form off our website ceenve.calpoly.edu > current students > graduate students > department forms. Submit this form to Kay Kibbe in the CE/ENVE Office. She will inform the CE/ENVE Graduate Coordinator and seek the needed approval of the Graduate Education Office.
4. **Permission Number** – Kay will provide you with a permission number to enroll in 1 unit of CE 596 (C/NC) during the quarter of your exam with the chair as instructor. This unit counts towards the total needed to graduate.
5. **Comprehensive Exam** – Comprehensive exams should be given during dead week or finals week. Coordinate a date that works with your committee and keep an email record of this agreed date. Remind your committee members of the exam date/place in the weeks prior. Reach out to Kay Kibbe to reserve a room with the CE/ENVE office for the exam – often 192-206 is used.
6. Complete the assignment given by your committee and prepare for your oral exam. Impress us!
7. **Submit the Master's Exam Approval Form** – Print this form off our website ceenve.calpoly.edu > current students > graduate students > department forms. Submit this form to the Graduate Education Office.

Justification for the CE/ENVE Comprehensive Exam Process

“A comprehensive examination is one of the possible culminating experiences for the master's degree and assesses the student's ability to (1) integrate knowledge, (2) show critical and independent thinking, and (3) demonstrate mastery of the subject matter. The results of the examination should provide evidence of these abilities and achievements. A record of the examination questions and responses is maintained.... The quality of work accomplished, including the quality of the writing, is the major consideration in judging.” -- 2011-2013 Cal Poly Catalog

Review the following exam description with your Committee Chair

- The comprehensive exam will give an opportunity for the student to demonstrate mastery of the discipline, including the ability to tackle open-ended engineering problems and synthesize knowledge.
- The exam will be composed of a written and oral portion. In addition to technical content, writing quality will be considered in the grading. The oral portion allows evaluation of oral communication (e.g., clarity, logic, and style) and the versatility and adaptability of the student in dealing with integrated technical topics.
- The assignment for the written portion will be prepared by the committee chair in consultation with the two other committee members. The chair will communicate to the student as early as possible the general breadth of the comprehensive topics to be on the written and oral portions.
- Some recommendations for the exam are the following:
 - Preparation for the exam and completion of the assignment and presentation will require about 60 hours of student effort.
 - The written portion will be submitted to the committee at least three days prior to the oral portion.
 - The oral portion of the exam will include a student presentation of no more than 20 minutes

related to the written portion, and a question and answer period that will not be limited to the specific topics of the written portion. Whiteboard calculation questions should be expected.

The oral portion will typically last 60 minutes.

- The committee will evaluate the written and oral portions of the exam and recommend a single pass or fail result.
- The written portion of the exam and a summary of the oral portion should be submitted by the committee chair to the CE/ENVE office for archiving. Remind the chair after the exam.
- The committee chair will report the result to the Graduate Coordinator in the form of an email/memo in a timely manner following the exam.