

M.S. Comprehensive Exam – Student Instructions

Department of Mechanical Engineering

Effective: Fall 2012

Updated: June 2018

The final checkpoint in a Master's Non-thesis degree is the Comprehensive Exam. The Comprehensive Exam tests a student's mastery of technical knowledge in focus courses, including both theory and application. The exam will be administered near the end of the Fall and Spring semesters and is typically taken during the student's last semester. Comprehensive exams are not administered during Summer.

MS NON-THESIS COMPREHENSIVE EXAM INSTRUCTIONS

I. Purpose of the Comprehensive Exam

Test the student's competency in the chosen area of focus. Students will be examined on 3 out of 5 of their core classes that make up their Program of Study focus. Students can choose the 3 focus courses on which they will be tested.

II. Format Overview

1. **Exam format:** The exam is a three hour written test based on the student's 3 selected focus courses. The exam is open-book and open-notes.
2. **Examining Committee:** The student will set up an examining committee, which is comprised of the instructors of the focus courses on which s/he elects to be tested. Each instructor may administer no more than 2 of the 3 exams (i.e., minimum of 2 instructors on the examining committee). The examining committee will also be indicated on the Program of Study Form, which is also due to the Graduate Advising Office during the first week of the semester.
3. **When to take the exam:** Students typically take the comprehensive exam during their last semester of their graduate studies. However, it is advised that students take the exam earlier in their program of study. The student must be enrolled during this semester in which they are taking the comprehensive exam.
4. **Retakes:** If a student does not pass their exam, they will have one chance to retake the exam in the next semester. Students must register for the retake during the first week of the next semester. If a student does not pass the exam at the second attempt, then that student will be dismissed from the Department of Mechanical Engineering's Master's program.

III. Prior to the Exam: Detailed Procedures

1. **Exam Registration:** The student is required to turn in the Comprehensive Exam Notification of Intent Form by the first week of the semester in which s/he will take the exam.
2. **Subject Areas:** Students must communicate with committee members about the 3 selected focus courses for the exam. Supervisory Committee signatures are required on the Notification of Intent form.

3. **Program of Study Requirement:** The student is also required to submit a Master's Non-thesis Program of Study to the Graduate Advising Office by the first week of the semester. Students must obtain a B+ grade or greater in all focus courses.
4. **Exam Date:** The exam will take place during the 13th week of the semester (Fall or Spring only). The exact date, time and location will be announced during the third week of the semester.

IV. Exam Preparation

Once the student's exam areas are approved by the Supervisory Committee, it is highly recommended that students meet with their examining committee members to discuss study methods and topics.

VI. During the Written Exam: General Rules and Procedures

1. The written exam will take 3 hours to complete. Although each subject area is allotted 1 hour, students may use the entire 3 hour period to work on any topic as they need.
2. It is expected that the exam will test the comprehensive as well as integrative knowledge of the student.
3. The exam is open book and open notes. Laptops are not permitted during the exam. In case a student needs access to data on Canvas, an e-book, etc., they will have to arrange to take the exam in the testing center.

V. After the Exam: Scoring

1. Each subject area of the exam will be graded on a 100 point scale.
2. A score of 75 or higher in each subject area indicates a passing grade in the exam.
3. Students must pass all three subject area portions in order to pass the comprehensive exam. If the student does not pass 1 or more subject areas, they will be deemed a partial pass and will be required to pass the failed subject(s) during their one retake opportunity.
4. The supervisory committee may require a follow-up oral exam (the following week) in case they need additional clarification on the performance in the written exam.
5. Scores will be made available by the end of Week 16.
6. Due to graduation deadline requirements, examiners are requested to grade and score the exam within 5 days from the exam date.