

UCSD CSE M.S. Comprehensive Exam

Revised: July 2018

Original MS Committee Document: August 2016

Students planning to complete their M.S. in CSE degree via the *Comprehensive Exam* plan are required to successfully pass three course-hosted comprehensive exams, each in a different subject area.

The comprehensive exam is a practical exam designed to evaluate each student's ability to apply what they have learned. In order to ensure that the exam is relevant and presented in context, it is *integrated into host courses*. In most cases, the associated work serves dual purposes, contributing independently to the student's course grade and comprehensive exam score.

The exam material typically takes the form of a specific class assignment or exam, or portion thereof, which has been approved in advance by the faculty committee. The availability of courses, or course hosted exam offerings, is subject to change anytime by the faculty committee.

Exam Policies

- Students are **required to successfully pass comprehensive exams in (3) three courses; each course must be from a different subject area** (for eligible subject areas, please see **Appendix A** below)
- **Students are permitted (5) five or fewer attempts.** The implication of this is that a student can fail at most two attempts and still be eligible for a MS under the comprehensive exam option.
- Within a single quarter:
 - students may not attempt more than one course-hosted exam in any single subject area.
 - students may take at most three course-hosted exams (each must be in a different subject area).
- If a student does not pass the comprehensive exam in a course, they may not retake the comprehensive exam for that course.

Eligible Course-Hosted Exams & Subject Areas

- For examples of previous eligible course-hosted exams and their approved subject areas, please refer to **Appendix A** below.
- The subject area assigned to each eligible course-hosted exam will be announced quarterly along with the registration form. Please note, the list of eligible course-hosted exams & their respective subject areas are separate from the depth areas listed in the curriculum.
- Eligible course-hosted exams and subject areas are subject to change at anytime by the MS Faculty Committee

Registration

- Course-hosted exam registration is announced via email from the CSE MS advisors each quarter during week 3 (Fall, Winter, Spring). Students must register in advance via the published registration form by the specified deadline.
- The quarterly registration announcement will include eligible course-hosted exam options along with their respective approved subject areas.
- Once a student has registered, the attempt is counted, even if the student drops (or withdraws) from the class or, for whatever reason, does not complete the exam component. Students must be careful to ensure that they have submitted their correct course hosted exam selections before the registration deadline.

FAQs: Refer to Page 3

Appendix A Course Hosted Exams

Past Offerings & Subject Eligibility

(**Subject to Change, Future Offerings Not Guaranteed)

Subject Area	Past Courses Approved (Subject to Change)
Architecture	CSE 240A - Principles of Computer Architecture CSE 240B - Parallel Comp. Arch
Artificial Intelligence	CSE 250A - AI - Probabilistic Reasoning and Learning CSE 250B - AI: Learning Algorithms CSE 255 - Data Mining/Analytics CSE 258 - Recommender Systems and Web Mining
Bioinformatics	CSE 280A - Computational Biology
Compilers	CSE 231 - Compilers
Database	CSE 232 - Principles of Database Systems CSE 232B - Database System Implementation CSE 233 - Database Theory CSE 291 - MGMT of Large-Scale Graph Data
Embedded Systems	CSE 237A - Introduction to Embedded Computing CSE 237C - Validation/Testing Embedded Systems CSE 237D - Design Automation and Prototyping for Embedded Systems
Graphics/Vision	CSE 252A - Computer Vision 1 CSE 252B - Computer Vision II CSE 274- Sampling and Reconstruction of Visual Appearance
PL/SE	CSE 210 - Principles of Software Engineering CSE 218 - Software Engineering/Adv Topic CSE 230 - Principles of Programming Languages
Robotics	CSE 291- Introduction to Robotics CSE 291 - Mathematics for Robotics
Systems/Networking	CSE 221 - Operating Systems CSE 222A - Communication Networks CSE 223B - Distributed Computing & Systems CSE 224 (formerly 291) - Graduate Networked Systems (CSE 260 - Parallel Computing CSE 291 - Modern Storage Systems
Theory	CSE 200 - Computability Complexity

CSE 202 - Algorithms CSE 203A - Advanced Algorithms CSE 206A - Lattice Algorithms and Applications CSE 207 - Modern Cryptography

FAQs

Q. How to prepare for the exam?

Given the exams are hosted by courses, you don't need to do anything special to prepare for the exam. Prepare as you would for course work, as guided by the course staff, using TAs and other course support, as permitted by the course's policies.

Q. How to review your graded exam?

The material is managed by the course staff, as are other assignments within the course.

Q. How to appeal your score?

If you would like to appeal the Pass/Attempted grade associated with any exam component, you may do so. Appeals are made in writing and should be given to MS Faculty Committee, please consult with cse-ms-advisors@eng.ucsd.edu regarding the petition. Appeals are initially reviewed by the original grader or supervising faculty member. Subsequently, upon request, the appeal may be provided to the exam committee for a second level review. If requested, the third and final level of review within the department is to the department chair.

Q. If I don't pass the comprehensive exam after five (5) attempts, what are my options?

Students may pursue a thesis option, but there is no guarantee that they can find an advisor.

Q. Can I take more than one course of exam material in the same area in the same quarter, to make really sure I pass? Can I take more than three (3) courses of exam material in the same quarter to make sure I pass?

No. Within a single quarter, students may not attempt more than one course's worth of exam material in one area or more than three courses worth of exam material, across areas. If you want to repeat an area, it needs to be during a subsequent quarter.

Q. If I do not pass one course's exam materials, can I repeat the course and try again?

No. You need to pick another course. It can be in the same area, so long as you have not already passed the "course hosted" comprehensive exam for another course in that area, and aren't concurrently attempting another course in that area.