

C.S. Ph.D. Program

Comprehensive Exams (Comps) Structure

There are 13 comprehensive exams (comps) scheduled each Fall quarter, held around late October or early November. All exams are 1 hour in length.

The comps are divided into 3 areas: Mathematical & Theoretical Foundations, Computer Systems, and Artificial Intelligence & Applications. Each of these areas has a certain number of required comps as well as elective comps, which are listed below. The corresponding alternate course for each comp is listed in parentheses on the far right.

Students must pass 8 out of the 13 comps in order to fulfill the comprehensive exam requirement. **Each student should pass at least 6 comps within the first two years in the program and all 8 comps by the end of the third year in order to be making reasonable progress in the program. Each comp can be fulfilled either by passing the exam or by earning a grade of A- or higher in the alternate course. There are no substitutions to the official comprehensive exam structure.**

Area A: Mathematical & Theoretical Foundations

The 2 required comps:

Analysis of Algorithms (AA)	(CS 161)
Automata and Formal Languages (AUTO)	(CS 154)

Choose 1 of the following 2 comps:

Logic (LOGIC)	(CS 157 or PHIL 251)
Numerical Analysis (NA)	(CS 205a)

See reverse

Area B: Computer Systems

The 1 required comp:

Computer Architecture (ARCH) (EE108b)

Choose 2 of the following 4 comps:

Compilers (COMP) (CS 143)

Networks (NET) (CS 144)

Programming Languages (PL) (CS 242)

Software Systems (SYS) (CS 140)

Area C: Artificial Intelligence & Applications

The 1 required comp:

Artificial Intelligence (AI) (CS 121)

Choose 1 of the following 3 comps:

Databases (DB) (CS 145)

Graphics (GRAPH) (CS 148)

HCI (CS 147)

Please Note:

Any questions concerning the alternate courses, test scheduling and procedures need to be addressed to the Ph.D. Program Committee via Kathi DiTommaso (kathi@cs). Individual faculty members cannot change, add, or substitute alternative courses for the above Comprehensive Exam Structure. Serving as a CA for any alternate course does not equal a pass for the corresponding comp. Each comp can be fulfilled either by passing the exam or by earning a grade of A- or higher in the approved alternate course.

There are no exceptions to this rule.

Any questions concerning the specific test questions, fairness and grading problems must be directed (after the exam dates) to the faculty member responsible for writing and grading the exam.