

Department of Computer and Information Science Graduate Learning Outcomes

14 December 2018

Graduate students in the CIS program have a variety of professional goals. Our general learning outcomes are listed below, but these may vary in their detail according to the primary career aims of the student. Details on the CIS Graduate Programs, including the departmental requirements meant to achieve the learning outcomes listed below, are posted on the Computer and Information Science Department website¹.

Learning Outcomes for Masters students: In order to obtain a Masters degree in Computer and Information Science, a student is expected to be knowledgeable and proficient in the following areas.

1. **Core Knowledge Breadth:** Demonstrate a working knowledge of major theories, research findings, and methodological approaches within Computer Science (Foundations, Systems, Data Science).
2. **Core Knowledge Depth:** Demonstrate a deep working knowledge of major theories, research findings, and methodological approaches within one of the Computer Science areas of Foundations, Systems, and Data Science.
3. **Complex Software Development:** Demonstrate a working knowledge of complex software development techniques.

If a student is pursuing the MS with thesis option, these additional learning outcomes also follow.

4. **Scientific Inquiry:** Achieve a fluency in the scientific literature and compelling questions within a primary field of research, and (for empirical research studies) achieve proficiency in relevant experimental design, methodology, and data analysis/statistical methods.
5. **Scientific Communication:** Demonstrate effective written scientific communication skills.

Learning Outcomes for Ph.D. students: In order to obtain a Ph.D. degree in Computer and Information Science, a student is expected to be knowledgeable and proficient in the following areas.

1. **Core Knowledge Breadth:** Demonstrate a broad working knowledge of major theories, research findings and methodological approaches in multiple content areas within Computer and Information Science (Foundations, Systems, Data Science).
2. **Core Knowledge Depth:** Demonstrate a deep working knowledge of major theories, research findings, and methodological approaches within one of the Computer Science areas of Foundations, Systems, and Data Science.
3. **Complex Software Development:** Demonstrate a working knowledge of complex software development techniques.
4. **Scientific Inquiry:** Achieve a deep fluency in the scientific literature and compelling questions within a primary field of research, and achieve proficiency in relevant experimental design, methodology, and data analysis/statistical methods.
5. **Scientific Communication:** Demonstrate effective oral and written scientific communication skills.

¹ <https://cs.uoregon.edu/graduate/computer-and-information-science-department-phd-program>