Department of Computer and Information Science
Graduate Learning Outcome Assessment Plan

14 December 2018

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.

Details on the curriculum and requirements of the Computer and Information Science Graduate Programs are posted on the Department website[1].

In addition to the assessment opportunities provided by the program requirements (see tables below), the department will collect information on future career plans from our students in an exit survey upon graduation, in order to assess post-graduation job placement success, and to provide information on career

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

trends that will be helpful in assessments of whether the program requirements match the needs of our graduates.

In each fall term, the Graduate Education Committee will review the efficacy of the Computer and Information Science Graduate Programs in meeting their learning outcomes, including an assessment of the outcome of changes to the curriculum/requirements that were implemented in the previous year. If it is deemed that changes to the programs are needed, a working group will be assigned the task of developing a motion that can be presented to and voted on in a CIS faculty meeting.

The tables below outline the relationships between the program requirements and the desired learning outcomes (I = Introduces outcome; D = Develops outcome; A = Assesses outcome – for required coursework, final grade must be a B– or better).

***Masters* Requirements and Learning Outcomes**

Requirement	Core Knowledge Breadth	Core Knowledge Depth	Complex Software Development	Scientific Inquiry	Scientific Communication
Graduate-level Breadth Requirement	I/D/A		I/D/A		
Graduate-level Depth Requirement		I/D/A			
Research Project/Paper/Thesis				I/D/A	I/D/A

***Ph.D.* Requirements and Learning Outcomes**

Requirement	Core Knowledge Breadth	Core Knowledge Depth	Complex Software Development	Scientific Inquiry	Scientific Communication
Graduate-level Breadth Requirement	I/D/A		I/D/A		
Graduate-level Depth Requirement		I/D/A			
Directed Research Project			D	I/D	I/D
Area Exam		D/A		D/A	D/A
Dissertation Proposal				D/A	D/A
Doctoral Dissertation		D/A		D/A	D/A