

Computer Science Program Assessment Plan October 2017

Program Learning Outcomes

Students successfully completing the program will be able to:

1. Demonstrate strong knowledge of the fundamental science, mathematics, and processes that underlie computation and Computer Science.
2. Analyze computational systems using appropriate practical and theoretical models.
3. Design, implement, test and validate computational systems subject to appropriate requirements and external constraints.
4. Work effectively in teams and demonstrate group development skills for solving technical problems and delivering working systems.
5. Communicate ideas and research findings effectively in written reports, oral presentations, and graphical summaries.
6. Exhibit appreciation and knowledge of the cultural, ethical, societal, and environmental contexts of computing and the responsibilities of computing professionals.

Program Assessment Methods

Direct

- The core courses in Computer Science require a high level of mastery of computational concepts and skills. Student grades in these courses strongly reflect students' achievement of program learning objectives. Course grades will be reviewed and changes made as necessary. (annual; CSC faculty and staff)
- Post-graduation placement in graduate school programs or in industry. (annual; CSC, HSEAS, and/or ASE staff)
- Awards and scholarships received by students before and after graduation. (annual; CSC, HSEAS, and/or ASE staff)
- A subset of courses will be selected for evaluation by faculty in the form of a reflective memo. Faculty will reflect on the course learning objectives in terms of the PLOs, review student assessments, and describe possible improvements. (annual; CSC faculty)

Indirect

- Meeting between undergraduate council representatives and faculty (semi-annual; CSC faculty and staff).
- Alumni self-assessment of learning outcomes (annual; Alumni Relations)

	Pre-Major Requirements				
	CSC171	MTH150	CSC172	MTH161	MTH162
Fundamentals of computing	X	X	X	X	X
Practical and theoretical analysis	X	X	X	X	X
Design, implement, test, validate	X		X		
Teamwork	X		X		
Written/oral presentation					
Broader context					

	Major (BS) Requirements							
	MTH 165	CSC 173	CSC 242	CSC 252	CSC 254	CSC 280	CSC 282	CSC 262
Fundamentals of computing	X	X	X	X	X	X	X	X
Practical and theoretical analysis	X	X	X	X	X	X	X	X
Design, implement, test, validate		X	X	X	X			X
Teamwork		X	X	X	X			
Written/oral presentation			X			X	X	
Broader context								

	Selected Advanced Courses				
	CSC210	CSC212	CSC214	CSC299	CSC395H
Fundamentals of computing		X			
Practical and theoretical analysis	X		X		X
Design, implement, test, validate	X	X	X		X
Teamwork	X	X	X		
Written/oral presentation		X		X	X
Broader context		X		X	

	Writing				Clusters	
	WRT105	WRT273	CSC273	CSC2xxW	HUM	SS
Fundamentals of computing						
Practical and theoretical analysis						
Design, implement, test, validate						
Teamwork						
Written/oral presentation	X	X	X	X	X	X
Broader context					X	X