

CSCI-MS

Graduate Track/Specialty Area

Worksheet

Name of Track: Scientific Computing

Faculty Member(s) using track: Armin Mikler and Robert Renka

Required Courses for all Tracks: 4 credits (Algorithms and 1-hour seminar course) are required for all tracks.

Course Number	Course Name	Credits	Semester Taken
CSCE 5020	Current Research in CSE	1	
CSCE 5150	Analysis of Computer Algorithms	3	

Track Core Courses: Each track will require a minimum of 9 credits to be chosen from a list of at least 3 courses. This list may include specific courses that students must take, provide a choice between a short list of courses, or any combination thereof.

Core Courses Required: 3

Course Number	Course Name	Credits	Semester Taken
CSCE 5220	Computer Graphics	3	
CSCE 5230	Methods of Numerical Computations	3	
CSCE 5933	Topics in Computer Science and Engineering	3	

Track Supporting Courses: Tracks are expected to provide a list of supporting courses. Tracks may require a student to take courses from the supplemental list based on the following:

- for thesis option: The maximum number of required courses across the track (**core and supporting**) should not exceed 15 credits (not including thesis). For MS with thesis, the total number of hours required is 31. This leaves a minimum of 6 credit hours free for the student to choose. One 6000 level course must be included on your degree plan.
- for course option: The maximum number of required courses across the track (**core and supporting**) should not exceed 21 credits. For MS without thesis, the total number of hours required is 37. This leaves a minimum of 12 credit hours free for the student to choose. One 6000 level course must be included on your degree plan.

Supporting Courses Required: 2/4 (may include core courses not selected)

Course Number	Course Name	Credits	Semester Taken
CSCE 5160	Parallel Processing and Algorithms	3	
CSCE 5170	Graph Theory for Computer Scientists	3	
CSCE 5213	Modeling and Simulation	3	
CSCE 5350	Database Systems 1	3	
CSCE 5610	Computer Systems Architecture	3	
CSCE 5640	Operating Systems Design	3	
CSCE 6150	Complexity of Parallel Computation	3	
CSCE 6220	Advanced Computer Graphics	3	
CSCE 6230	Advanced Scientific Computing	3	
CSCE 6933	Advanced Topics in Computer Science & Engineering	3	

Total Required Courses for Track/Specialty Area: 5/7