Master of Science in Computer Science

Degree Codes: ES MS CS **Contact:** Prof. Jean Gourd

Overall requirements for the specific options are as follows:

Requirements for all degree types

Course Category	Number	Course Name		SCH
Core Courses	CSC 520	Advanced Analysis of Algorithms and Complexity	3	11
	CSC 521	Advanced Computer Architectures	3	
	CSC 532	Advanced Topics in Software Engineering	3	
	ENGR 510	Introduction to Engineering and Science Research Methods	2	
				Total 11

Thesis Option (in addition to the courses above)

Course Category	Number	Course Name		SCH
Core Course	ENGR 511	Eng. And Science Research Proposal Development	1	1
Electives*	12 semester hours (at least half of which must be CSC) out of list below or approved by advisory committee*			12
Thesis	CSC 551	Research & Thesis (6 SCH are required with at least 3 SCH taken in the quarter the thesis is reviewed and approved)		6
				Total 30

Practicum Option (in addition to the courses above)

Course Category	Number	Course Name		SCH
Core Course	ENGR 511	Eng. And Science Research Proposal Development	1	1
Electives*	21 semester hours (at least half of which must be CSC) out of list below or approved by advisory committee*			21
Practicum	CSC 555	Practicum		3
				Total 36

Coursework Only Option (in addition to the courses above)

Course Category	Number	Course Name		SCH
Core Course	ENGR 589A	Special Topics	1	1
Electives*	24 semester hours (at least half of which must be CSC) out of list below or approved by advisory committee*			24
				Total 36

***** Electives will be in consultation with the student's advisory committee out of the approved course list below.

Preapproved Elective Courses

CSC	MATH	STAT	Other
CSC 450 Computer Networks	MATH 407 Partial Differential Equations	STAT 505 Statistics for Engineering and Science	ELEN 567 Wireless Sensor Networks
CSC 470 Computer Graphics	MATH 435 Introduction to Graph Theory	STAT 520 Theory of Probability	PHYS 540 Computational Methods in Physics Modeling and Simulation I
CSC 475 Artificial Intelligence	MATH 460 Number Theory	STAT 521 Theory of Statistics	PHYS 541 Computational Methods in Physics Modeling and Simulation II
CSC 543 Digital Forensics and Cyber Crime	MATH 505 Linear Algebra	STAT 650 Time Series Analysis	INEN 504 Systems Simulation
CSC 552 Distributed and Cloud Computing	MATH 515 Numerical Analysis	STAT 651 Discrete Markov Processes	INEN 506 Dynamic Programming
CSC 554 Advanced Networking	MATH 535 Graph Theory	STAT 652 Stochastic Processes	INEN 509 Economics and Decision Making
CSC 579 Data Mining and Knowledge Discovery	MATH 574 Numerical Solutions for PDE I		INEN 518 Project Management
CSC 580 Advanced Data Mining, Fusion and Applications	MATH 575 Numerical Solutions for PDE II		

Plan of Study Important Information: When entering information in the plan of study, it is important to note that only core courses and all core courses need to be put in section 1.1, while all others are put in section 1.2 (i.e. special topics, seminar, and research courses). See http://coes.latech.edu/grad-programs/plan-of-study-instructions.pdf for plan of study instructions.

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