Master's of Science in Information Technology
Effective Fall 2019 term (subject to change)

Required courses - 9 credits:

Student must obtain a grade of C or better in these courses.
A grade of C- is not acceptable. *Overall GPA must remain above a 3.0 in order to graduate*.

Required courses				
Course # & name:	*Credits:*	*Term & Year:*	*Grade:*	*Comments/Professor:*
CEN 5087 Software and Data Modeling	3			
CIS 5372 Fundamentals of Computer Security	3			
CIS 5027 Computer Systems Fundamentals	3			

Focus Area - 6 credits:

Non- thesis students must select 2 courses from one focus area that aligns with their interest and backgrounds. Areas include but are not limited to: software, communications, policy/legal issues, wireless and security.

Required courses				
Course # & name:	*Credits:*	*Term & Year:*	*Grade:*	*Comments/Professor:*
	3			
	3			

Security Focus:	Software Focus:
CIS 5373: Systems Security	CEN 5011: Advanced Software Engineering
CIS 5374: Information Security & Privacy	CEN 5064: Software Design
EEL 6787: Network Security	CEN 6075: Software Specification
TCN 5080: Secure Telecomm Transactions	CEN 6070: Software Verification
	CEN 5076: Software Testing
	CIS 6612: Advanced Topics in Software Engineering
	COP 5725: Principles of Database Management Systems

System Administration Focus:	
CIS 5346: Storage Systems	TCN 5030: Computer Comm & Networking Tech
CIS 5432: Advanced IT Automation	TCN 6260: Internetworking
CEN 5011: Advanced Software Engineering	TCN 6270: Mobile and Wireless Networks
COP 5614: Operating Systems	TCN 6430: Network Man & Control Standards
COP 6611: Advanced Operating Systems	

General Electives – 15 credits:

A maximum of 3 credits of Independent Studies can be taken, with the GPD approval (CIS 5900 or CIS 5910)
A Max of 3 credits can be taken from the approved electives in section 7.2 of the grad program handbook.

Required courses				
Course # & name:	*Credits:*	*Term & Year:*	*Grade:*	*Comments/Professor:*
	3			
	3			
	3			
	3			
	3			

Courses offered by School of Computing and Information Sciences:

Course # & name:	Course # & name:
CAP 5011: Multimedia Systems and Applications	CNT 6207: Distributed Processing
CAP 5109: Adv Human-Computer Interaction	CNT 6208: Adv Topics Concurrent & Distributed Sys
CAP 5507: Game Theory	COP 5614: Operating Systems
CAP 5510C: Introduction to Bioinformatics	COP 5621: Compiler Construction
CAP 5602: Introduction to Artificial Intelligence	COP 5725: Principles of Database Man Systems
CAP 5610: Introduction to Machine Learning	COP 6556: Semantics of Programming Languages
CAP 5627: Socially Interactive Agents	COP 6611: Adv Operating Systems
CAP 5640: Grad Intro to Natural Lang Processing	COP 6727: Adv Database Systems
CAP 5701: Adv Computer Graphics	COP 6795: Special Topics on Databases
CAP 5738: Data Visualization	COT 5310: Theory of Computation I
CAP 5768: Intro to Data Science	COT 5407: Introduction to Algorithms
CAP 5771: Principles of Data Mining	COT 6421: Theory of Computation II
CAP 6736: Geometric Modeling & Shape Analysis	COT 6446: Randomized Algorithms
CAP 6776: Adv Topics in Information Retrieval	COT 6930: Special Topics: Adv Topics in Theory
CAP 6778: Adv Topics in Data Mining	COT 6931: Topics in Cognitive Science
CDA 5655: Virtualized Systems	COT 6936: Topics in Algorithms
CDA 6939: Special Topics: Adv Topics Comp Arch	TCN 5010: Telecomm Tech and Applications
CEN 5011: Adv Software Engineering	TCN 5030: Computer Comm & Networking Tech
CEN 5064: Software Design	TCN 5060: Telecomm Software & Methodologies
CEN 5079: Secure Security	TCN 5080: Secure Telecomm Transactions
CEN 5082: Grid Enablement of Scientific App	TCN 5150: Multimedia Computer Comm
CEN 5120: Expert Systems	TCN 5421: Theory of Network Comp
CEN 6070: Software Verification	TCN 5440: Software Dev for Telecomm Net
CEN 6075: Software Specification	TCN 5445: Telecommunication Network Programming
COT 5428: Formal Foundations for Cybersecurity	TCN 5455: Information Theory
COT 5443: Opt Methods for Comp: Theory & App	TCN 5640: Telecomm Enterprise Planning & Strategy
COT 5520: Computational Geometry	TCN 5710: Cyber Sustainability
COT 6405: Analysis of Algorithms	TCN 6210: Telecomm Network Analysis & Design
CIS 5208: Social, Eco, & Policy Aspects of CyberSecurity	TCN 6215: Advanced Network Algorithms
CIS 5346: Storage Systems	TCN 6230: Optical Networks
CIS 5370: Principles of Cybersecurity	TCN 6260: Internetworking
CIS 5373: Systems Security	TCN 6270: Mobile and Wireless Networks
CIS 5374: Information Security and Privacy	TCN 6275: Mobile Computing
CIS 5432: Advanced IT Automation	TCN 6420: Modeling & Perf Eval of Telecomm Net
CIS 5931: Special Topics	TCN 6430: Networks Man & Control Standards
CIS 6612: Special Topics: Adv Topics in Software Eng	TCN 6450: Wireless Information Systems
CIS 6930: Adv Special Topics	TCN 6820: Industrial Dev of Telecomm
CIS 6931: Special Topics Adv Topics in Info Processing	TCN 6880: Telecomm Public Policy Dev & Standards
CGS 6834: Programming for the Web	CNT 5109: Computing for Smart Sensing

Other approved electives, Non-SCIS courses (section 7.2 of the handbook): maximum of 1 course from here.

Course # & name:	Course # & name:
EEL 6167: VLSI Design	EEE 5348: Digital Electronics
EEL 5500: Digital Communication Systems I	EEL 5718: Computer-Communication Network Eng
EEL 5813: Neural Networks-Algorithms & Applications	EEL 5820: Digital Image Processing
EEL 6787: Network Security	ESI 6546: Network Flow Analysis
STA 5236: Regression Analysis	STA 6807: Queuing & Stat Models