

Core Requirements: 9 credits

COMP-SCI 5592 Design & Analysis of Algorithms

Select two of the following:

CSEE 5110 Network Architecture I

COMP-SCI 5551 Advanced Software Engineering

COMP-SCI 5570 Architecture of Database Management Systems

COMP-SCI 5565 Introduction to Statistical Learning

-or-

COMP-SCI 5540 Principles of Big Data Management

-or-

COMP-SCI 5542 Big Data Analytics and Applications

Emphasis/Area of Interest Requirements: 21 credits

Data Science Emphasis

COMP-SCI 5525 Cloud Computing
COMP-SCI 5540 Principles of Big Data Management
COMP-SCI 5542 Big Data Analytics and Applications
COMP-SCI 5543 Real-time Big Data Analytics
COMP-SCI 5565 Introduction to Statistical Learning
COMP-SCI 5570 Architecture of Database Mgmt Systems
COMP-SCI 5590 Visualization in Data Science
COMP-SCI 5590N Neural & Adaptive Networks
COMP-SCI 5596A Computer Security I: Cryptology
COMP-SCI 5596B Computer Security II: Applications
CSEE 5590 Python/Deep Learning
CSEE 5590 Big Data Programming Hadoop/Spark

Networking & Telecommunications Emphasis

COMP-SCI 5525 Cloud Computing
COMP-SCI 5590 Introduction to Blockchain
COMP-SCI 5590N Neural & Adaptive Networks
COMP-SCI 5596A Computer Security I: Cryptology
COMP-SCI 5596B Computer Security II: Applications
CSEE 5110 Network Architecture I
CSEE 5111 Network Architecture II
CSEE 5112 Computer Network Design and Analysis
CSEE 5590 IOT/COG Robotics Programming
CSEE 5590 IOT/Embedded Systems
E&C-ENGR 5570 Principles of Digital Communication Systems

**Database & Information Management
Area of Interest**

COMP-SCI 5570 Architecture of Database Mgmt Systems
COMP-SCI 5571 Distributed Database Mgmt Systems
COMP-SCI 5582 Computer Vision
COMP-SCI 5590 Introduction to Blockchain

Software Engineering & System Emphasis

COMP-SCI 5531 Advanced Operating Systems
COMP-SCI 5551 Advanced Software Engineering
COMP-SCI 5552A Formal Software Specification
COMP-SCI 5560 Knowledge Discovery & Management
COMP-SCI 5582 Computer Vision
COMP-SCI 5590 IOT/COG Robotics Programming
COMP-SCI 5590 Introduction to Prototyping Unity/VR
COMP-SCI 5590PA Parallel Algorithms
CSEE 5590 Python/Deep Learning
CSEE 5590 Programming for Web/Cloud/Mobile App
CSEE 5590 IOT/COG Robotics Programming

Courses offered are subject to instructor availability and student interest. Additional courses may be available.