M.S. DEGREE
How to Plan Your Program of Study

PREREQUISITES

CEG5310 Computer Organization

CEG5350 Oprtng Systms Internals & Design

CS5160 Computer Science Fundamentals

CS5100 Data Struc & Algorithms

CEG5320 Digital System Design

1. Complete all assigned prerequisite courses

2. Complete the core courses for your Major

3. Choose a focus area and take courses within that area.

4. Make sure the courses satisfy the graduation requirement of your program

CHOOSE YOUR MAJOR

Masters of Science Computer Science

CS 7200
AND
CS 7100 **or** CS7140 **or** CEG7370

Thesis Option:
- Maximum 9 hours of thesis
- Minimum 16 hours of CS courses, including the core courses
- Minimum 6 hours of 7000-level formal courses in addition to the core
- Maximum 3 hours of independent study

Non-thesis Option:
- Minimum 16 hours of CS courses, including the core courses
- Minimum 12 hours of 7000-level formal courses in addition to the core
- Maximum 3 hours of independent study

Masters of Science Computer Engineering

CEG 7360
AND
CS 7100 **or** CS7140 **or** CEG7370

Thesis Option:
- Maximum 9 hours of thesis
- Minimum 16 hours of CEG courses, including the core courses
- Minimum 6 hours of 7000-level formal courses in addition to the core
- Maximum 3 hours of independent study

Non-thesis Option:
- Minimum 16 hours of CEG courses, including the core courses
- Minimum 12 hours of 7000-level formal courses in addition to the core
- Maximum 3 hours of independent study

Masters of Science Cyber Security

CEG 6430, CEG 6420, CEG 6424, CEG 6750

Domain Areas:
1) Information and privacy protection, 2) Systems and network security, 3) Cyber physical systems, 4) Secure pervasive computing, 5) Surveillance and detection systems, and 6) trustworthy platforms

Project Option:
- Twelve (12) credit hours of advanced coursework within the six domain areas
- Six (6) credit hours security project

Thesis Option
- Nine (9) credit hours of advanced coursework within the following six domain areas
- Nine (9) credit hours of thesis

CHOOSE YOUR FOCUS

We offer courses that will allow you to focus your degree in these areas.

- Software
- Hardware
- Intelligent Systems
- Data Analysis
- Vision and Graphics

- Mathematics of Computation
- Secure Software or Hardware

CEG6110 Intro to Software Engr

CEG6120 Managing Sofw/Dev Proces

CEG6130 Pers Softw/Dev Process

CEG6180 Obj-Orient Prog & Desig

CEG6230 Intro Robotics

CEG6260 Matrix Computations

CEG6322 VLSI Design

CEG6324 Dig Integ Ckt Design

CEG6326 IC Hardware Security and Trust

CEG6330 Micropro Embedded System

CEG6360 Distrib Sys & Cloud Comp

CEG6400 Comp Networks & Security

CEG6410 Mobile Computing

CEG6420 Host Computer Security

CEG6422 Secure Computing Pract

CEG6424 Security Attacks & Def

CEG6426 Legal Aspects Cyber Sec

CEG6430 Cyber Network Security

CEG6440 Android Int & Security

CEG6450 Sensor Net and Systems

CEG6500 Computer Graphics

CEG6510 3D Modeling/Animation

CEG6520 Sci Vis and Virt Env

CEG6750 Information Security

CEG6870 Intro Intel Cont Sys

CEG6900 Special Topics in CEG

CEG6970 Independent Study in CEG

CEG7020 Low Pwr VLSI Sys Des

CEG7030 VLSI Des Synth Optim

CEG7040 VLSI Testing Design

CEG7050 Trust Integ Ckt Design

CEG7060 Advanced Robotics

CEG7080 CMOS Mxd Sig IC Des

CEG7350 Computer Architecture

CEG7360 Embedded Systems

CEG7370 Distributed Computing

CEG7380 Cloud Computing

CEG7420 Rev Egr & Prog Analysis

CEG7450 Adv. Comp. Networks

CEG7470 Adv. Wireless Networks

CEG7550 Computer Vision&Pattern Recogn

CEG7560 Visual & Image Process

CEG7570 Pattern Recognition

CEG7580 Digital Image Processing

CEG7590 Medical Image Analysis

CEG7900 Selected Topics in CEG

CEG7920 Independent Study in CEG

CEG7950 MSCEG Thesis Research

CEG7980 Part-time CPT in CEG

CEG7990 Full-time CPT in CEG

CEG

CS

CS6100 Grad Research Prog Prac

CS6240 Coding Theory

CS6270 Optimization Techniques

CS6280 Combinatorics and Graphs

CS6290 Cryptography Data Secur

CS6370 Par Prog Many-Core GPUs

CS6700 Database Management Systems

CS6710 Intro to Data Mining

CS6800 Web Information Systems

CS6810 Bioinformatic Algorithms

CS6830 Systems Simulation

CS6840 Intro Machine Learning

CS6850 Foundations of AI

CS6900 Special Topics in CS

CS6970 Independent Study in CS

CS7060 Numerical Analysis I

CS7070 Numerical Analysis II

CS7100 Adv. Prog. Languages

CS7120 Functional & Logic Prog.

CS7140 Adv Software Engineering

CS7200 Alg. Design and Analysis

CS7210 Network Science

CS7220 Computability/Complexity

CS7230 Information Theory

CS7600 Trust Networks

CS7700 Adv. Database Systems

CS7720 Advanced Data Mining

CS7800 Information Retrieval

CS7810 Meta Represent Languages

CS7820 Semantic Web

CS7830 Machine Learning

CS7840 Soft Computing

CS7850 Privacy Aware Computing

CS7900 Special Topics in CS

Graduate Courses 6000 and 7000 level