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

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

CHOOSING 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
CEG 6110 Intro to Software Engr
CEG 6120 Managing Sofw/Dev Proces
CEG 6130 Pers Softw/Dev Process
CEG 6180 Obj-Orient Prog & Desig
CEG 6230 Intro Robotics
CEG 6260 Matrix Computations
CEG 6322 VLSI Design
CEG 6324 Dig Integ Ckt Design
CEG 6326 IC Hardware Security and Trust
CEG 6330 Micropro Embedded System
CEG 6360 Distrib Sys & Cloud Comp
CEG 6400 Comp Networks & Security
CEG 6410 Mobile Computing
CEG 6420 Host Computer Security
CEG 6422 Secure Computing Pract
CEG 6424 Security Attacks & Def
CEG 6426 Legal Aspects Cyber Sec
CEG 6430 Cyber Network Security
CEG 6440 Android Int & Security
CEG 6450 Sensor Net and Systems
CEG 6500 Computer Graphics
CEG 6510 3D Modeling/Animation
CEG 6520 Sci Vis and Virt Env
CEG 6750 Information Security
CEG 6870 Intro Intel Cont Sys
CEG 6900 Special Topics in CEG
CEG 6970 Independent Study in CEG
CEG 7020 Low Pwr VLSI Sys Des
CEG 7030 VLSI Des Synth Optim
CEG 7040 VLSI Testing Design
CEG 7050 Trust Integ Ckt Design
CEG 7060 Advanced Robotics
CEG 7080 CMOS Mxd Sig IC Des
CEG 7350 Computer Architecture
CEG 7360 Embedded Systems
CEG 7370 Distributed Computing
CEG 7380 Cloud Computing
CEG 7420 Rev Egr & Prog Analysis
CEG 7450 Adv. Comp. Networks
CEG 7470 Adv. Wireless Networks
CEG 7520 Computer Vision & Pattern Recogn
CEG 7550 Visual & Image Process
CEG 7570 Pattern Recognition
CEG 7580 Digital Image Processing
CEG 7590 Medical Image Analysis
CEG 7900 Selected Topics in CEG
CEG 7920 Independent Study in CEG
CEG 7950 MSCEG Thesis Research
CEG 7980 Part-time CPT in CEG
CEG 7990 Full-time CPT in CEG

CS 6100 Grad Research Prog Prac
CS 6240 Coding Theory
CS 6270 Optimization Techniques
CS 6280 Combinatorics and Graphs
CS 6290 Cryptography Data Secur
CS 6370 Par Prog Many-Core GPUs
CS 6700 Database Management Systems
CS 6710 Intro to Data Mining
CS 6800 Web Information Systems
CS 6810 Bioinformatic Algorithms
CS 6830 Systems Simulation
CS 6840 Intro Machine Learning
CS 6850 Foundations of AI
CS 6900 Special Topics in CS
CS 6970 Independent Study in CS
CS 7060 Numerical Analysis I
CS 7070 Numerical Analysis II
CS 7100 Adv. Prog. Languages
CS 7120 Functional & Logic Prog.
CS 7140 Adv Software Engineering
CS 7200 Alg. Design and Analysis
CS 7210 Network Science
CS 7220 Computability/Complexity
CS 7230 Information Theory
CS 7600 Trust Networks
CS 7700 Adv. Database Systems
CS 7720 Advanced Data Mining
CS 7800 Information Retrieval
CS 7810 Meta Represent Languages
CS 7820 Semantic Web
CS 7830 Machine Learning
CS 7840 Soft Computing
CS 7850 Privacy Aware Computing
CS 7900 Special Topics in CS

Graduate Courses 6000 and 7000 level