WRIGHT STATE UNIVERSITY

COMPUTER SCIENCE AND ENGINEERING

Masters Degrees

How to Plan Your Program Of Study

Choose Your Major

1. Complete the core courses for your Major
2. Choose an area of specialty and take courses within your area.
3. Make sure the courses satisfy the graduation requirement of your program

1 Masters of Science in Computer Science
CS 7200

2 Masters of Science in Computer Engineering
CEG 7360

3 Masters of Science in CyberSecurity
CEG 6430, CEG 6420, CEG 6424, CEG 6750

MS-Computer Science & MS-Computer Engineering
CS 7100 or CS7140 or CEG7370

Choose An Area Of Specialty

Software:
CS 6370, CS 7100, CS 7120, CS 7140, CS 7200, CS 7220, CEG 6110, CEG 6120, CEG 6130, CEG 6180, CEG 6360, CEG 6910

Hardware:
CS 6230, CEG 6322, CEG 6324, CEG 6330, CEG 7020, CEG 7030, CEG 7040, CEG 7080, CEG 7350, CEG 7360, CEG 7370, CEG 7450, CEG 7470

Intelligent Systems:
CS 6840, CS 6850, CS 7800, CS 7810, CS 7820, CS 7830, CS 7840, CEG 6870, CEG 7060

Data Analysis:
CS 6700, CS 6710, CS 7700, CS 7720, CS 6800, CEG 7570

Vision and Graphics:
CEG 6500, CEG 6510, CEG 6520, CEG 7550, CEG 7590

Mathematics of Computation:
CS 6240, CS 6270, CS 6280, CS 6830, CS 7060, CS 7070, CEG 6260

Secure Software/Hardware:
CS 6290, CS 7600, CS 7850, CS 7900, CEG 6324, CEG 6360, CEG 6410, CEG 6422, CEG 6426, CEG 6440, CEG 6450, CEG 7050, CEG 7370, CEG 7380, CEG 7420, CEG 7450, CEG 7470, CEG 7560, EE 7400

Graduate Areas of Specialty

SOFTWARE

CS 6370 Parallel Programming for Many-Core GPUs

CS 7100 Advance Programming Languages

CS 7120 Functional and Logic Programming

CS 7140 Advanced Software Engineering

CS 7200 Algorithm Design and Analysis

CS 7720 Data Mining

CEG 6110 Introduction to Software Engineering

CEG 6120 Managing the Software Development proc.

CEG 6130 Personal Software Development Process

CEG 6180 Object Oriented Programming and Design

CEG 6360 Distributed Computing and Systems

CEG 6910 Technology-based Ventures

HARDWARE

CEG 6230 Introduction to Robotics

CEG 6322 VLSI Design

CEG 6324 Digital IC Design with PLDs & FPGAs

CEG 6330 Microprocessor-based Embedded Systems

CEG 7020 Low Power VLSI System Design

CEG 7030 VLSI Testing & Design for Testability

CEG 7040 VLSI Design Synthesis and Optimization

CEG 7080 CMOS Mixed Signal IC Design

CEG 7350 Computer Architecture

CEG 7360 Embedded Systems

CEG 7370 Distributed Computing

CEG 7450 Advanced Computer Networks

CEG 7470 Advanced Wireless Networks

SECURE SOFTWARE/HARDWARE

CS 6290 Cryptography & Data Security

CS 7600 Trust Networks

CS 7850 Privacy Aware Computing

CS 7900 Analysis & Design of Human-Machine Cyber Security Systems

CEG 6324 Digital Integrated Circuit Design with PLDs and FPGAs

CEG 6360 Distributed Systems & Cloud Computing

CEG 6410 Mobile Computing

CEG 6422 Secure Computing Practices

CEG 6426 Legal Aspects of Cyber Security

CEG 6440 Android Internals ans Security

CEG 6450 Sensor Networks and Systems

CEG 7050 Trust in Integrated Circuit Design

CEG 7370 Distributed Computing

CEG 7380 Cloud Computing

CEG 7420 Host Computer Security II

CEG 7450 Advanced Computer Networks

CEG 7470 Advanced Wireless Networks

CEG 7560 Visualization for Cyber Security

EE 7400 Information Theory

INTELLIGENT SYSTEMS

CS 6840 Introduction to Machine Learning

CS 6850 Foundations of AI

CS 7800 Information Retrieval

CS 7810 Knowledge Representation and Reasoning

CS 7820 Advanced Semantic Web

CS 7830 Machine Learning

CS 7840 Soft Computing

CEG 6870 Introduction to Intelligent Control Syst.

CEG 7060 Advanced Robotics

DATA ANALYSIS

CS 6700 Introduction to Data Base Management Syst.

CS 6710 Introduction to Data Mining

CS 7700 Advanced Data Base Systems

CS 7720 Data Mining

CS 6800 Web Information Systems

CEG 7570 Pattern Recognition

MATHEMATICS OF COMPUTATION

CS 6240 Coding Theory

CS 6270 Optimization Theory

CS 6280 Combinatorics and Graph Theory

CS 6830 Systems Simulation

CS 7060 Numerical Analysis I

CS 7070 Numerical Analysis II

CEG 6260 Matrix Computation

VISION & GRAPHICS

CEG 6500 Computer Graphics

CEG 6510 3-D Modeling and Computer Animation

CEG 6520 Scientific Visualization

CEG 7550 Computer Vision

CEG 7590 Medical Image Analysis and Visualization

RESEARCH AND INDEPENDENT STUDY

CS 7950 MS Thesis Research in CS

CS 7960 Cyber Security Capstone Project

CS/CEG 6970 Independent Study in CS/CEG (Nonthesis)

CS/CEG 7920 Independent Study in CS/CEG (Thesis)

CEG 7950 MS Thesis Research in CEG

Graduate Courses

CEG Courses:

CEG 6110 Introduction to Software Engineering
CEG 6120 Managing the Software Development proc.
CEG 6130 Personal Software Development Process
CEG 6180 Object Oriented Programming and Design
CEG 6230 Introduction to Robotics
CEG 6260 Matrix Computation
CEG 6322 VLSI Design
CEG 6324 Digital IC Design with PLDs & FPGAs
CEG 6330 Microprocessor-based Embedded Systems
CEG 6360 Distributed Computing and Systems
CEG 6430 Computer Networks and Security
CEG 6410 Mobile Computing
CEG 6420 Host Computer Security
CEG 6422 Secure Computing Practices
CEG 6424 Security Attacks and Defenses
CEG 6450 Sensor Networks and Systems
CEG 6500 Computer Graphics
CEG 6510 3-D Modeling and Computer Animation
CEG 6520 Scientific Visualization
CEG 6750 Information Security
CEG 6910 Technology-based Ventures
CEG 6870 Introduction to Intelligent Control Syst.
CEG 7020 Low Power VLSI System Design
CS/CEG 6970 Independent Study in CS/CEG (Nonthesis)
CEG 7040 VLSI Design Synthesis and Optimization
CEG 7030 VLSI Testing & Design for Testability
CEG 7080 CMOS Mixed Signal IC Design
CEG 7060 Advanced Robotics
CEG 7350 Computer Architecture
CEG 7360 Embedded Systems
CEG 7370 Distributed Computing
CEG 7380 Cloud Computing
CEG 7420 Host Computer Security II
CEG 7450 Advanced Computer Networks
CEG 7470 Advanced Wireless Networks
CEG 7550 Computer Vision
CEG 7560 Visualization for Cyber Security
CEG 7570 Pattern Recognition
CEG 7590 Medical Image Analysis and Visualization
CS/CEG 7920 Independent Study in CS/CEG (Thesis)
CEG 7950 MS Thesis Research in CEG

CS Courses:

CS 6240 Coding Theory
CS 6270 Optimization Theory
CS 6280 Combinatorics and Graph Theory
CS 6290 Cryptography & Data Security
CS 6370 Parallel Programming for Many-Core GPUs
CS 6700 Introduction to Data Base Management Syst.
CS 6710 Introduction to Data Mining
CS 6800 Web Information Systems
CS 6830 Systems Simulation
CS 6840 Introduction to Machine Learning
CS 6850 Foundations of AI
CS 7060 Numerical Analysis I
CS 7070 Numerical Analysis II
CS 7100 Advance Programming Languages
CS 7120 Functional and Logic Programming
CS 7140 Advanced Software Engineering
CS 7200 Algorithm Design and Analysis
CS 7220 Compatibility and Complexity
CS 7600 Trust Networks
CS 7700 Advanced Data Base Systems
CS 7720 Data Mining
CS 7800 Information Retrieval
CS 7810 Knowledge Representation and Reasoning
CS 7820 Advanced Semantic Web
CS 7830 Machine Learning
CS 7840 Soft Computing
CS 7850 Privacy Aware Computing
CS 7950 MS Thesis Research in CS
CS 7960 Cyber Security Capstone Project