Communication Systems and Networks

There are three (3) course requirements:

1. ECE 6380 Computer Communications
2. ECE 8480 Telecommunication Network Modeling and Analysis
3. One (1) of the following:
    - ECE 6400 Performance Analysis of Local Computer Networks
    - ECE 8410 Distributed Computing and Networks
    - ECE 8450 Computer System Design and Operation
    - ECE 8500 Computation and Simulation

Computer Systems Architecture

Students must take at least one (1) course from each of the following three areas:

Software

- ECE 6170 - Elements of Software Engineering
- ECE 8520 - Software Engineering
- ECE 8550 - Artificial Intelligence
- ECE 8730 - Parallel and Distributed Systems

Architecture

- ECE 6290 - Organization of Computers
- ECE 6680 - Embedded Computing
- ECE 8420 - Computer Architecture
- ECE 8510 - Advanced Topics in Computer Architecture

Networks

- ECE 6400 - Performance Analysis of Local Computer Networks
- ECE 6490 - Computer Network Security
- ECE 8480 - Telecommunication Networks Modeling and Analysis
- ECE 8490 - Advanced Topics in Computer Communications

Digital Signal Processing

There are three (3) course requirements:

1. ECE 6670 Introduction to Digital Signal Processing
2. ECE 8440 Digital Signal Processing
3. Three (3) of the following:
    - ECE 6420 Knowledge Engineering
    - ECE 8460 Digital Processing of Speech Signals
    - ECE 8470 Digital Image Processing
    - ECE 8550 Artificial Intelligence
    - ECE 8560 Pattern Recognition
    - ECE 8720 Artificial Neural Networks
    - ECE 8770 Computer Vision

Intelligent Systems

There are four (4) course requirements:

1. ECE 8010 Analysis of Linear Systems
2. ECE 8470 Image Processing
3. One (1) of the following:
    - ECE 6420 Knowledge Engineering
    - ECE 6490 Computer Network Security
    - ECE 6680 Embedded Computing
4. One (1) of the following:
    - ECE 8540 Analysis of Robot Systems
    - ECE 8550 Artificial Intelligence
    - ECE 8560 Pattern Recognition
    - ECE 8590 Intelligent Robotic Systems
    - ECE 8690 Advanced Robot Kinematics
    - ECE 8720 Neural Networks
    - ECE 8770 Computer Vision