General MSE Engineering Project Management Area

Suggested Courses

ME 597/ECE 595- Engineering Project Management
ME 597/ECE 595- Advanced Engineering Economics
ME 597/ECE 595- Statistical Concepts in Engineering
IE 530*- Quality Control (Prerequisite: basic statistics)
IE 545*-Engineering Economic Analysis
IE 546*- Economic Decisions in Engineering (Prerequisite: basic probability)
IE 533*- Industrial Application of Statistics
IE 590R*- Manufacturing Economics

*denotes distance courses by Purdue University- Engineering Professional Education

Faculty: Dr. Masoud Mojtahed**, Dr. Yeow Siow
ECE Specialization Automatic Control Graduate Area

Suggested Courses

ECE 569- Introduction to Robotics
ECE 595- Estimation, Identification, and Control
ECE 595- MATLAB
ECE 595- Neural Networks
ECE 580*-Optimization Methods for Systems and Control (Prerequisite: MA 511* or equivalent)
ECE 600*- Random Variables and Signals
ECE 602*-Lumped System Theory (W. Lafayette Campus Core)
ECE 675*-Introduction to Analysis of Non-Linear Systems (Prerequisite: ECE 602* or equivalent)
ECE 680*- Modern Automatic Control (Prerequisite: ECE 602 or equivalent)

Math Courses

MA 511* or MA 554-Linear Algebra with Applications
ME 597- Numerical Methods

*denotes distance courses by Purdue University- Engineering Professional Education

Faculty: Dr. Nasser Houshangi**, Dr. Don Gray, Dr. David Kozel
ECE Specialization Biomedical Imaging and Sensors Graduate Area

Suggested Courses

ECE 595- Digital Imaging Processing
ECE 595- Magnetic resonance Imaging
ECE 595- Biomedical Imaging
ECE 595- Biomedical Instrumentation
ECE 600* - Random Variables and Signals (W. Lafayette Campus Core)
ECE 637* - Digital Image Processing I

Math Courses

MA 527* - Advance Mathematics for Engineers and Physicists I
MA 528* - Advance Mathematics for Engineers and Physicists II (Prerequisite: MA 527)

*denotes distance courses by Purdue University- Engineering Professional Education

Faculty: Dr. Bin Chen**, Dr. Lucy Yang
ECE Specialization Communications, and Networking Graduate Area

Suggested Courses

- ECE 547- Introduction to Computer Communication Networks
- ECE 595-Client Server Programming
- ECE 595-Fiber Optic Communication
- ECE 595-Wireless Communication
- ECE 595- Estimation, Identification, and Control
- ECE 600*- Random Variables and Signals (W. Lafayette Campus Core)
- ECE 544*-Digital Communications

Math Courses

- STAT 511*-Statistical Methods
- STAT 512*-Applied Regression Analysis

*denotes distance courses by Purdue University- Engineering Professional Education

Faculty: Howard Gerber, Mohammad Anan**
ECE Specialization Signal and Image Processing Graduate Area

Suggested Courses

ECE 595-Speech Processing
ECE 595- Digital Image Processing
ECE 595-Digital Signal Processing
ECE 595-Medical Imaging
ECE 595- Estimation, Identification, and Control
ECE 600*- Random Variables and Signals (W. Lafayette Campus Core)
ECE 538*-Digital Signal Processing I
ECE 637*-Digital Image Processing I
ECE 648*-Wavelet, Time-Frequency, and Multi-rate Signal Processing
   (Prerequisite: ECE 538* or equivalent)

Math Courses

STAT 511*-Statistical Methods
STAT 512*-Applied Regression Analysis

*denotes distance courses by Purdue University- Engineering Professional Education

Faculty: Dr. Kaliappan Gopalan, Dr. David Kozel**, Dr. Bin Chenn
Computer Engineering Artificial Intelligence Graduate Area

Suggested Courses

ECE 595-Neural Networks
ECE 569-Introduction to Robotics
ECE 595-Computer Architecture
ECE 595-Computer Graphics
ECE 600*- Random Variables and Signals
ECE608*-Computational Models & Methods (W. Lafayette Campus Core)

*denotes distance courses by Purdue University- Engineering Professional Education

Faculty: Dr. Don Gray**, Dr. Chandramouli Viswanathan, Dr. Lucy yang, Dr. Nasser Houshangi
Computer Engineering Computer Architecture Graduate Area

Suggested Courses

ECE 595-Computer Architecture
ECE 595-Advance Digital System
ECE 547- Introduction to Computer Communication Networks
ECE 595-VLSI Design and Fabrication
ECE 456*-Digital Integrated Circuit Analysis & Design
ECE 600*- Random Variables and Signals
ECE608*-Computational Models & Methods (W. Lafayette Campus Core)

*denotes distance courses by Purdue University- Engineering Professional Education

Faculty: Dr. Kaliappan Gopalan**, Dr. Muhammad Anan, Dr. Nasser Houshangi,
Computer Engineering Software System Graduate Area

Suggested Courses

ECE 574-Software Engineering Methodology
ECE 595-Introduction to Applications with Java
ECE 595-MATLAB
ECE 595-Computer Graphics
ECE608*-Computational Models & Methods (W. Lafayette Campus Core)

*denotes distance courses by Purdue University- Engineering Professional Education

Faculty: Dr. Lucy Yang**, Dr. Muhammad Anan, Dr. Don Gray
ECE Specialization Energy Sources and Systems Graduate Area

Suggested Courses

ECE 595-Power Systems
ECE 595- Advanced Electric Drives
ECE 595- Power Electronics
ECE 595-Renewable Energy
ECE 580*-Optimization Methods for Systems and Control (Prerequisite: MA 511* or equivalent)
ECE 610*- Energy Conversions (W. Lafayette Campus Core)
ECE 633*-Modeling and Simulation of Power System Components (Prerequisite: ECE 610* or equivalent)
ECE 695S*-Power Electronic Converters and Systems (Prerequisite: ECE 610* or equivalent)

Math Courses

MA 511* or MA 554-Linear Algebra with Applications

*denotes distance courses by Purdue University- Engineering Professional Education

Faculty: Dr. Edward Pierson**, Dr. David Kozel, Dr. Robert Kramer, Dr. Constantin Apostoaia
ECE Specialization Fields and Optics Graduate Area

Suggested Courses

ECE 595-Fiber Optic Communication
ECE 595-Wireless Communication
ECE 595- Numerical Methods
ECE 604*- Electromagnetic Field Theory (W. Lafayette Campus Core)
ECE 595*-Electromagnetic and Electromechanical component Design
ECE 617*-Antennas: Design and Application (prerequisite: ECE 604* or equivalent)

Math Courses

MA 525- Introduction to Complex analysis

*denotes distance courses by Purdue University- Engineering Professional Education

Faculty: Dr. Howard Gerber*, Dr. Mohammad Anan
ECE Specialization VLSI and Circuit Design Graduate Area

Suggested Courses

ECE 595-Advanced Digital System
ECE 595-Digital Signal Processing
ECE 595-Computer Architecture
ECE 595-VLSI Design & Fabrication
ECE 606*-Solid State Devices (W. Lafayette Campus Core)
ECE 608*-Computational Models & Methods
ECE 546*-Digital Computational techniques for Electronic Circuits
ECE 654*-Solid State Devices II (Prerequisite: ECE 606*)
ECE 612*-Nanoscale Transistors
ECE 670*-Modeling and Optimization of High-Performance Interconnects

Math Courses

MA 511* or MA 554-Linear Algebra with Applications

*denotes distance courses by Purdue University-Engineering Professional Education

Faculty: Dr. Kaliappan Gopalan, Dr. Muhammad Anan **