

ELECTIVE COURSES

Other Suggested Electives:

CAS CS 511 Formal Methods I
CAS CS 542 Machine Learning
ENG EC 504 Advanced Data Structures
CAS EC 611 Object-oriented Software Principles and Design
ENG SE 700 Advanced Special Topics
QST OM 855 Project Management
ENG SE 951 Independent Study
ENG SE 952 Mentored Project

Engineering Management Courses

ENG EK 731 Bench-to-Bedside: Translating BME Innov from Lab to Marketplace
ENG ME 502 Invention: Technology Creation, Protection, & Commercialization
ENG ME 517 Product Development
ENG ME 525 Technology Ventures
ENG ME 583 Product Management
ENG ME 584 Manufacturing Strategy
QST MO 848 The Leadership Challenge
QST SI 839 Design Thinking and Innovation
QST SI 852 Starting New Ventures
QST SI 870 Strategies for Sustainable Development

Approved Practicum Courses:

1. SE 951 Independent Study, SE 952 Mentored Project, OR
2. Two of the following (indicated in the Concentration course list, above, with an asterisk*),
 - ENG ME/MS 507 Process Modeling and Control
 - ENG ME/EC 514 Simulation
 - ENG SE/EC/ME 543 Sustainable Power Systems
 - ENG SE/EC/ME 544 Networking the Physical World
 - ENG ME 570 Robot Motion Planning
 - ENG SE/EC/ME 701 Optimal and Robust Control
 - ENG EC 702 Recursive Estimation and Optimal Filtering
 - ENG SE/ME 704 Adaptive Control
 - ENG SE/EC/ME 710 Dynamic Programming and Stochastic Control
 - ENG SE/ME 714 Advanced Stochastic Modeling and Simulation
 - ENG SE/EC/ME 724 Advanced Optimization Theory and Methods
 - ENG SE/EC/ME 725 Queuing Systems
 - ENG SE/EC/ME 732 Combinatorial Optimization and Graph Algorithms
 - ENG SE/EC/ME 733 Discrete Event and Hybrid Systems*
 - ENG SE/ME/EC 734 Hybrid Systems
 - ENG SE/ME 740 Vision Robotics and Planning
 - ENG SE/EC 741 Randomized Network Algorithms
 - ENG EC 744 Mobile Networking and Computing
 - ENG SE 755 Communication Networks Control
 - ENG SE/ME 762 Nonlinear Systems and Control
 - ENG SE/ME 765 Production System Design
 - ENG SE/ME 766 Advanced Scheduling Models and Methods
3. OR, ONE Practicum Course from other College of Engineering departments (indicated in the Concentration course list, above, with two asterisks**):
 - ENG ME 526 Simulation of Physical Processes
 - ** ENG ME 560 Precision Machine Design and Instrumentation
 - ENG EC 601 Product Design in ECE
 - ENG BE 700 Advanced Topics in Biomedical Engineering
 - ENG EC 952 Directed Group Project