Boston University  College of Engineering  
Division of Systems Engineering  
MEng Program Planning Sheet

Student Name: ___________________________  Bu ID ___________________________
Advisor Signature: _______________________

Master of Engineering (MEng) students must take 32 credits all of which must be at the 500 level or higher. The coursework requirements for the MEng degree are as follows:
Core (2 courses), Concentration (2 courses from one of the concentration areas in Systems Engineering), and a Practicum. MEng students must also satisfy the advanced technical course requirement by taking at least 700 or higher level courses from the Systems Engineering concentration areas, or courses approved by the Systems Engineering Graduate Committee in advance. The remaining required MEng credit hours remain unstructured and can be chosen, with advisor approval, to meet an individual student’s academic needs. The choice of courses must form a coherent and balanced program in Systems Engineering. MEng students should make their course selection in consultation with their faculty advisor. MEng students must maintain a cumulative GPA of 3.00 to remain in good academic standing and to graduate. All graduate courses are counted in the GPA. Grades of “C-” or lower are not acceptable for the MEng degree.

Structured Course Requirements

Core  (Select one course from each of two Core areas.)
A. SE/EC/ME 501 Dynamic Systems Theory, or SE/EC/ME 710 Dynamic Programming and Stochastic Control Semester/Grade ___________________________
B. SE/EC 524 Optimization Theory and Methods Semester/Grade ___________________________
C. SE/ME 714 Adv Stoch Modeling/Simulation, or EC 505 Stochastic Processes, or EK 500 Probability with Stat App Sem/Grade ___________________________

Concentration  (Select two courses from one Concentration area.)
A. Computational and Systems Biology
ENG BE 505 Molecular Bioengineering I
ENG BE 561 DNA and Protein Sequence Analysis
ENG BE 562 Computational Biology: Genomes, Networks, Evolution
ENG BE 567 Nonlinear Dynamics in Biological Systems
ENG BE 747 Adv. Signals and Systems Analysis for Biomedical Eng
ENG BE 760 Structural Bioinformatics
ENG BE 767 Protein and Genomic Systems Engineering
ENG BE 777 Computational Genomics I

B. Control Systems
ENG SE/EC/ME 501 Dynamic Systems Theory
ENG ME/MS 507 Process Modeling and Control
ENG ME 560 Precision Machine Design and Instrumentation
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 EC 708 Advanced Process Control
ENG SE/ME/EC 710 Dynamic Programming and Stochastic Control
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/ME 762 Nonlinear Systems and Control

C. Energy and Environmental Systems
CAS EC 513 Game Theory
ENG SE/EC/ME 543 Sustainable Power Systems
ENG ME/MS 545 Electrochemistry of Fuel Cells and Batteries
CAS EC 571 Energy and Environmental Economics
CAS EC 572 Public Control of Business
ENG EC/MS 573 Solar Energy Systems
GRS GE 712 Regional Energy Modeling
GRS EC 716 Game Theory
OM 845 Clean Technology Business Models

Electives  (indicate course number, grade, semester)
1. __________________________  2. __________________________  3. __________________________  4. __________________________

Suggested Electives: CAS EC 513 Game Theory, GRS EC 716 Game Theory, CAS CS 511 Object-Oriented Software Principles, GSM OM 855 Project Mgt

PRACTICUM  (Through either (a) internship or employment in industry, government, or non-profit organization or (b) satisfactory completion of a project-based graduate course approved by the Division.) Course/Sem/Grade ___________________________ Fall ‘13 v3