MS&E REGISTRATION
SUMMER & FALL 2016
MS&E DEGREE OVERVIEW

• Master of Science
  – Management Science & Engineering

• Program offered by Columbia Engineering in conjunction with Columbia Business

• Expected Completion:
  – August or December 2016

• Expected Degree Conferral:
  – October 2016 or February 2017
DEGREE REQUIREMENTS

• 36 credits
  – Three required core courses plus electives
• CORE: IEOR E4004, IEOR E4111, IEOR E4101, IEOR E4102 (COMPLETED BY SPRING 2016)
• At least 6 courses (18 credits) must be in the IEOR department (IEOR, SIEO, IEME, CSOR designation).
• No Pass/Fail Courses
• All courses must be completed at Columbia
• Remain in good standing
• Academic integrity
MS&E PROGRAM

• Core, 12 points: IEOR E4004, 4111, 4101, 4102

• Semi core, 18 points:
  – Decision, Risk & Operations (9 points)
  – Analysis (min. 3 points)
  – Management (min. 3 points)
  – and Analysis + Management = 9 points

• Breadth electives (in consultation with advisor), 6 points
DRO SUMMER OFFERINGS

• DROM B8106-060 Operations Strategy (1.5)

• Additional CBS electives are offered during cross registration starting end of April
IEOR SUMMER BREADTH ELECTIVES

• IEOR E4721 Correlation Risk Modeling and Management (3)
• IEOR E4722 Modeling and Market Making in Foreign Exchange (1.5)
• IEOR E4731 Credit Risk Modeling and Derivatives (3)
• IEOR E4999 Fieldwork (Departmental approval)
ADDITIONAL SUMMER BREADTH ELECTIVES

• Refer to approved Summer 2016 elective list
• Additional courses offered in:
  – Computer Science
  – Economics
  – Mathematics
  – Statistics
• Courses not on the Summer 2016 elective list are not pre-approved; you must seek approval from info@ieor.columbia.edu.
FALL REGISTRATION

• Analytics
• Consulting
• Management
• Finance/Financial Engineering
• Entrepreneurship
• Decision, Risk, Operations
INTEREST IN ANALYTICS

- IEOR E4407 Game Theoretic Models of Operations
- IEOR E4570 Data Mining
- IEOR E4650 Business Analytics (two sections)
- IEOR E4575 Designing Digital Operating Models
- DROM B8127-060 Immersion Seminar in Big Data
INTEREST IN CONSULTING

- IEME E4310 The Manufacturing Enterprise
- IEOR E4000 Operations Management
- IEOR E4407 Game Theoretic Models
- IEOR E4507 Healthcare Operations Management
- IEOR E4550 Entrepreneurial Business Creation
- IEOR E4573 Design and Agile Project Mgmt. Eng. Lab (by application)
- IEOR E4711 Global Capital Markets
- IEOR E4998 Managing Tech. Innovations
- DROM B8107-060 Service Operations
- DROM B8510-060 MSE Managerial Negotiations
INTEREST IN MANAGEMENT

- IEOR E4000 Operations Management
- IEOR E4507 Healthcare Operations Management
- IEOR E4550 Entrepreneurial Business
- IEOR E4998 Managing Tech. Innovations
- DROM B8107 Service Operations (two sections: 060 & 061)
- DROM B8510 MSE Managerial Negotiations (two sections: 060 & 061)
INTEREST IN FINANCIAL ENGINEERING

HIGHLY SUGGESTED, FOUNDATIONAL:
• IEOR E4700 Intro to Financial Engineering
• IEOR E4711 Global Capital Markets

ELECTIVES:
• IEOR E4620 Pricing Models for FE
• IEOR E4714 Risk Management, Financial System & Financial Crisis
• DROM B8116-060 Risk Management
INTEREST IN FINANCIAL ENGINEERING

ADVANCED COURSES:

• IEOR E4500 Applications Programming for FE
• IEOR E4727 Programming for FE
• IEOR E4732 Computational Methods in Derivatives Pricing
• IEOR E4733 Algorithmic Trading
INTEREST IN ENTREPRENEURSHIP

FOUNDATIONAL:

- IEOR E4550 Entrepreneurial Business
- IEOR E4573 Design and Agile Project Mgmt. Eng. Lab (by application)
- IEOR E4998 Managing Tech. Innovations

OPTIONAL:

- DROM B8510 MSE Managerial Negotiations (two sections: 060 & 061)
The following courses are special courses from the Business school exclusive to MS&E students:

- DROM B8107-060 Service Operations
- DROM B8116-060 Risk Management
- DROM B8510 MSE Managerial Negotiations (two sections: 060 & 061)
- DROM B8127-060 Immersion Seminar in Big Data
MBA COURSE BIDDING: BOSS

• COLUMBIA BUSINESS:
  – Summer 2016: Starts end of April
  – Fall 2016: Starts last week of August
SIPA CROSS REGISTRATION

• COLUMBIA SIPA:
  – No summer courses
  – Fall 2016: Rolling basis, on SSOL
YOUR ACTION ITEMS

- Research your courses: [ieor.columbia.edu/ieor-courses-topics](ieor.columbia.edu/ieor-courses-topics)
- Discuss selections with your advisor
- Register [ssol.columbia.edu/](ssol.columbia.edu/)
  - Summer 2016 courses (now opened)
  - Fall 2016 courses (opens 4/18)
- Review your tuition e-Bill
- Review academic calendar [registrar.columbia.edu/](registrar.columbia.edu/)
THE IEOR OFFICE

3rd Floor Mudd Hall

info@ieor.columbia.edu

www.ieor.columbia.edu