MSE, MSFE, MSIE, MSOR
ACADEMIC ADVISING
SUMMER & FALL 2017
MSFE & MSE DEGREE REQUIREMENTS

• 36 credits
  – Core & Elective Requirements
• 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)
  – Analysis + Management = 9 points
• Breadth electives (in consultation with advisor), 6 points
• 30 credits
  – Four required core courses plus electives
• MSOR CORE: IEOR E4150, IEOR E4004, IEOR E4106 & IEOR E4404
• MSIE CORE: IEOR E4150, IEOR E4000, IEOR E4004 & IEOR E4106
• 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
IEOR SUMMER OFFERINGS

• IEOR E4721 Correlation Risk Modeling and Management (3)
• IEOR E4722 Modeling and Market Making in Foreign Exchange (1.5)
• IEOR E4900 Independent Research (Faculty supervision and approval)
• IEOR E4999 Fieldwork (Departmental approval)
OPT & FIELDWORK APPLICATION

SCROLL TO:
OPT REQUEST FORM
FIELDWORK
DRO SUMMER OFFERINGS

• DROM B8106-060 Operations Strategy (1.5)
• DROM B8858-060 Data-Driven Entrepreneurship (3)

• Additional CBS electives are offered during cross registration starting first week of May
ADDITIONAL SUMMER OFFERINGS

• Refer to approved Summer 2017 elective list
• Additional courses offered in:
  – Computer Science
  – Economics
  – Mathematics
  – Statistics
  – Business School (Cross Registration)
• If a course is not listed on the Summer 2017 elective list, you must seek explicit approval from info@ieor.columbia.edu or it may not be counted towards your degree requirement.
FALL REGISTRATION

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

- IEOR E4404 Simulation (MSOR & MSIE Only)
- IEOR E4407 Game Theoretic Models of Operations
- IEOR E4522 Python for Operations Research
- IEOR E4523 Data Analytics for OR
- IEOR E4524 Industry Projects in Analytics (By Application)
- IEOR E4540 Data Mining
- IEOR E4575 Designing Digital Operating Models
- IEOR E4650 Business Analytics (two sections)
- DROM B8127-060 Immersion Seminar in Big Data
- DROM B8131-060 Sports Analytics
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 E4555 Design and Agile Project Mgmt. Eng. Lab (By Application)
- IEOR E4711 Global Capital Markets (two sections)
- IEOR E4998 Managing Tech. Innovations
- DROM B8107 Service Operations (two sections; 060 & 061)
- DROM B8510 MSE Managerial Negotiations (two sections; 060 & 061)
DECISION, RISK, OPERATIONS

The following courses are special courses from the Business school exclusive to MS&E students:

- DROM B8107 Service Operations (two sections: 060, 061)
- DROM B8116-060 Risk Management
- DROM B8127-060 Immersion Seminar in Big Data
- DROM B8131-060 Sports Analytics
- DROM B8510 MSE Managerial Negotiations (two sections: 060, 061)

Opened to MSOR & MSIE in late August 2017
INTEREST IN ENTREPRENEURSHIP

FOUNDATIONAL:
• IEOR E4550 Entrepreneurial Business
• IEOR E4555 Design and Agile Project Mgmt. Eng. Lab (by application)
• IEOR E4998 Managing Tech. Innovations

OPTIONAL:
• DROM B8510 MSE Managerial Negotiations (two sections; 060 & 061)
INTEREST IN FINANCIAL ENGINEERING

FOR MSE, MSIE and MSOR ONLY (NOT INTENDED FOR MSFE)

HIGHLY SUGGESTED, FOUNDATIONAL:

• IEOR E4700 Intro to Financial Engineering
• IEOR E4711 Global Capital Markets

ELECTIVES:

• IEOR E4620 Pricing Models for FE
• IEOR E4726 Applied Financial Risk Management
• DROM B8116-060 Risk Management
APPROVED MSFE ELECTIVES

ADVANCED COURSES (MSFE ELECTIVES):

• IEOR E4500 Applications Programming for FE
• IEOR E4718 The Implied Volatility Smile
• IEOR E4727 Programming for FE
• IEOR E4731 Credit Risk and Credit Derivatives
• IEOR E4732 Computational Methods in Derivatives Pricing
• IEOR E4733 Algorithmic Trading
• DROM B8116-060 Risk Management
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 Negotiations (two sections; 060 & 061)
- DROM B8510 MSE Managerial Negotiations (two sections; 060 & 061)
CROSS REGISTRATION

• COLUMBIA BUSINESS:
  – Summer 2017: Starts first week of May
  – Fall 2017: Starts last week of August

• COLUMBIA SIPA:
  – No summer courses
  – Fall 2017: Rolling basis, on SSOL
YOUR ACTION ITEMS

• Research your courses: ieor.columbia.edu/ieor-courses-topics
• Discuss selections with your advisor
• Register ssol.columbia.edu/
  – Summer 2017 courses (now opened)
  – Fall 2017 courses (opens 4/17)
  – Review your tuition e-Bill
• Review academic calendar registrar.columbia.edu/
THE IEOR OFFICE

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info@ieor.columbia.edu

www.ieor.columbia.edu