MSOR
EARLY REGISTRATION INFORMATION
2017
AGENDA

• Degree Overview and Requirements
• Program Overview
• IEOR E4150 Waiver Application
• Degree Concentrations
• Special Concentration in Business Analytics
• Suggested Electives based on interest
• Special MSE Electives (Registration open in late August)
• Faculty Advisors
DEGREE OVERVIEW

• Master of Science in Operations Research
• Awarded by The Fu Foundation School of Engineering and Applied Science, Columbia University
• Expected Completion:
  – May, August or December 2018
• Expected Degree Conferral:
  – May 2018, October 2018 or February 2019
DEGREE REQUIREMENTS

• 30 credits
  – Four required core courses plus electives, 18 points must be IEOR courses
• MSOR core: IEOR E4150, IEOR E4004-002/003, IEOR E4106, IEOR E4404
• ENGI E4000 is required in order to receive IEOR career management services
• No Pass/Fail courses
• All courses must be completed at Columbia
• Remain in good standing; academic integrity
MSOR PROGRAM

For Fall 2017 semester, register for the following:

1. IEOR E4150 Intro to Probability & Statistics
2. IEOR E4004 (Section 002 or 003) Optimization Models and Methods
3. ENGI E4000-011 Professional Development

If are waived of IEOR E4150, then you should register for: IEOR E4106 Stochastic Models
• IEOE E4150 Introduction to Probability and Statistics is a foundational core course; inadequate preparation will lead to difficulty completing the program.
• You have an option to take the course in the fall or request a waiver.
• We will review your request to waive and respond within (10) business days.
• To request a waiver, fill out the form: https://goo.gl/forms/TXUqWoxul069VLWh1
• Deadline to request the waiver: August 25, 2017
HELPFUL SUGGESTIONS

• Be conservative and observe pre-requisite requirements.
• If you are waived from taking IEOR E4150, you should take IEOR E4106 in the Fall so you are prepared to take electives in the spring.
• Do *not* take the following set of courses in the same term:
  – IEOR E4150, IEOR E4106, IEOR E4404
  – IEOR E4150, IEOR E4106, IEOR E4700
  – IEOR E4106, IEOR E4404, IEOR E4700
DEGREE CONCENTRATIONS

• The MSOR Program offers (6) optional concentrations:
  1. Applied Probability
  2. Business Analytics (updated)
  3. Entrepreneurship and Innovation
  4. Financial and Managerial Applications
  5. Logistics and Supply Chain
  6. Optimization

• For requirements, see:
  http://ieor.columbia.edu/concentration/283
BUSINESS ANALYTICS CONCENTRATION
( MSOR EXCLUSIVE )

Required Technical Core, must take both:
IEOR E4522 Python for Operations Research (1.5)
IEOR E4523 Data Analytics for Operations Research

Analytics Electives, available for the Fall:
IEOR E4000 Operations Management
IEOR E4407 Game Theoretic Models of Operations
IEOR E4500 Applications Programming for Financial Engineering
IEOR E4540 Data Mining
IEOR E4650 Business Analytics
IEOR E4736 Event Driven Finance

More BA electives will be available in the Spring
IEOR E4522 Python Waiver

• IEOR E4522 Python is a required pre-requisite course for the Business Analytics concentration
• You have an option to take the course in the fall or request a waiver in order to take higher level BA electives
• We will review your request to waive and respond within (10) business days.
• To request a waiver, fill out the form: https://goo.gl/forms/xFJB87Vt4E8HHDOj1
• Deadline to request the waiver: August 18, 2017
INTEREST IN FINANCE

HIGHLY SUGGESTED, FOUNDATIONAL:
• IEOR E4403 Quantitative Corporate Finance
• IEOR E4711 Global Capital Markets

OPTIONAL:
• IEOR E4576 Derivatives Marketing and Structuring (1.5)
• IEOR E4700 Intro to Financial Engineering*
• IEOR E4620 Pricing Models for FE**
• IEOR E4500 Applications Programming for FE***
• DROM B8116-060 Risk Management (Open late August)

*Requires IEOR E4106
**Requires IEOR E4700; can be taken simultaneously as IEOR E4620
***Requires programming proficiency & opens in late August
INTEREST IN CONSULTING

- IEME E4310 The Manufacturing Enterprise
- IEOR E4000 Operations Management
- IEOR E4407 Game Theoretic Models
- IEOR E4711 Global Capital Markets
- IEOR E4555 Design and Agile Project Mgmt. Eng. Lab (Application Required; Deadline: August 4th)
- IEOR E4998 Managing Tech. Innovations
- DROM B8107-060/061 Service Operations (Open late August)
- DROM B8510-060/061 Managerial Negotiations (Open late August)
INTEREST IN MANAGEMENT

- IEOR E4000 Operations Management
- IEOR E4550 Entrepreneurial Business Creation
- IEOR E4998 Managing Tech. Innovation
- IEOR E4575 Designing Digital Operating Models
- DROM B8107-060/061 Service Operations (Open late August)
- DROM B8510-060/061 Managerial Negotiations (Open late August)
INTEREST IN ENTREPRENEURSHIP

- IEOR E4403 Quantitative Corporate Finance
- IEOR E4550 Entrepreneurial Business Creation
- IEOR E4555 Design and Agile Project Mgmt. Eng. Lab (Application Required; Deadline: August 4th)
- IEOR E4998 Managing Tech. Innovations
- DROM B8510-060/061 Managerial Negotiations (Open late August)
- DROM B8858-060 Data-Driven Entrepreneurship (Open late August)
SPECIAL MSE ELECTIVES

The following courses are special courses from the Business school exclusive to MS&E students. MSOR students are limited to only (1) of the five courses when they open in late August.

- DROM B8107-060/061 Service Operations
- DROM B8116-060 Risk Management
- DROM B8131-060 Sports Analytics
- DROM B8510-060/061 Managerial Negotiations
- DROM B8858-060 Data-Driven Entrepreneurship
• Faculty advisor will be assigned during orientation.
• For early registration inquiries, please email the IEOR Academic Affairs Team.
YOUR ACTION ITEMS

• Activate your UNI
• Login to SSOL https://ssol.columbia.edu/
• Register for your courses (core & electives)
• Like! the IEOR Advising Facebook Page https://www.facebook.com/IEORAdvising/
• Review your tuition e-Bill
• Review academic calendar http://registrar.columbia.edu/
THE IEOR OFFICE

SUITE 315 MUDD

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www.ieor.columbia.edu