



IEOR MAJORS INFORMATION SESSION





WELCOME TO THE IEOR DEPARTMENT

What is the IEOR Department?

- ◆ Department founded in 1918 in the FuSEAS
- ◆ One of nine Engineering Departments
- ◆ Department specializes in 2 disciplines and 2 concentrations:
 - Industrial Engineering
 - Operations Research
 - OR:Engineering Management
 - OR:Financial Engineering

The IEOR Toolkit

- We teach a toolkit to solve problems in various industries: finance, technology, service, manufacturing
- Toolkit consists of:
 - Mathematical skills (i.e. Probability, Calculus, Statistics)
 - Modeling skills (i.e. Simulation)
 - Programming skills (i.e. Java, C, SQL)
 - Soft skills (i.e. presentation, management)
 - Industry specific knowledge

The IEOR People

Currently:

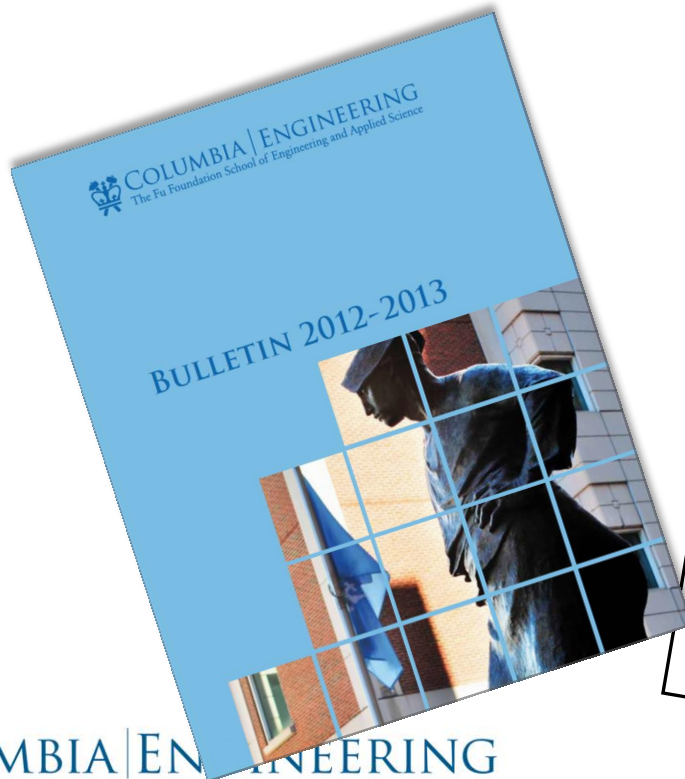
- Undergraduates: 290
- M.S. Students: 331
- Ph.D. Students: 50
- Full-time Faculty: 23
- Adjunct Faculty: 39
- Affiliated Faculty: 12 (Business, Electrical, Statistics, Mathematics)

Academic Advisors

- All students are assigned an advisor
- Academic Advisors:
 - Daniel Bienstock
 - Soulaymane Kachani
 - Jay Sethuraman
 - Karl Sigman
 - Cliff Stein
 - Ward Whitt

Tools to Stay on Track

- Follow the SEAS Bulletin from your major declaring year
- Plan ahead: use the Program Plans by major



COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK
DEPARTMENT OF INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH
BS IN OR: FINANCIAL ENGINEERING PROGRAM PLAN

NAME: _____ PID: _____ CELL PHONE: _____
 UNI: _____ MINOR: _____
 ADVISOR: _____

TERM	COURSE NUMBER	CREDIT	PTS	COMPLETED
	ECON W1205	4.0		<input type="checkbox"/>
	ENVI E2261	4.0		<input type="checkbox"/>
	Pre-professional	3.0		<input type="checkbox"/>
	MATH V2110	3.0		<input type="checkbox"/>
	MATH E1210	3.0		<input type="checkbox"/>
	or MATH 1207	3.0		<input type="checkbox"/>

TERM	COURSE NUMBER	CREDIT	PTS	COMPLETED
	CONS W1104	3.0		<input type="checkbox"/>
	CONS W3134	3.0		<input type="checkbox"/>
	ECON E3458	3.0		<input type="checkbox"/>
	STAT W3559	3.0		<input type="checkbox"/>
	or STAT 3559	3.0		<input type="checkbox"/>

TERM	COURSE NUMBER	CREDIT	PTS	COMPLETED
	IEOR E1104	3.0		<input type="checkbox"/>
	IEOR E3608	4.0		<input type="checkbox"/>
	IEOR E4403	3.0		<input type="checkbox"/>
	IEOR E4402	3.0		<input type="checkbox"/>
	ECON W3213	3.0		<input type="checkbox"/>

TERM	COURSE NUMBER	CREDIT	PTS	COMPLETED
	IEOR E3402	4.0		<input type="checkbox"/>
	IEOR E4454	4.0		<input type="checkbox"/>
	IEOR E4790	3.0		<input type="checkbox"/>
	ECON W3211	3.0		<input type="checkbox"/>
	CONS W4311	3.0		<input type="checkbox"/>

TERM	COURSE NUMBER	CREDIT	PTS	COMPLETED
	IEOR E4397	3.0		<input type="checkbox"/>
	IEOR E4407	3.0		<input type="checkbox"/>
	IEOR E4620	3.0		<input type="checkbox"/>

TERM	COURSE NUMBER	CREDIT	PTS	COMPLETED
	IEOR E4500	3.0		<input type="checkbox"/>
	IEOR E4630	3.0		<input type="checkbox"/>
	ECON W3412	3.0		<input type="checkbox"/>

TERM	COURSE NUMBER	CREDIT	PTS	COMPLETED
				<input type="checkbox"/>
				<input type="checkbox"/>

ELECTIVE REQUIREMENTS
 FINANCIAL ENGINEERING ELECTIVES (6 PTS)
 TERM COURSE NUMBER CREDIT PTS COMPLETED
 _____ _____ _____ _____
 _____ _____ _____ _____

A.N. 11401 Building, Room 713 wnh314@seas.columbia.edu

IEOR Curriculum: Sophomore Year

- **Probability and Statistics**
 - If OR, IE or OR:EMS, take SIEO W3600 (or SIEO W4150)
 - If you are interested in OR:FE, take IEOR E3658 (or STAT 4105) and IEOR E4307(or STAT W3107/4107)
 - If you have already taken IEOR E3658 Probability you may not take SIEO W3600 or SIEO 4150; you need to take IEOR E4307 (or STAT W3107/4107)
- **Data Structures**
 - Take it right after COMS 1004 or 1007

Financial Engineering Concentration

- To be considered at the end of the Fall term: apply online by December 4th
 - Responses will be emailed by third week of January
- To be considered at the end of the Spring term: apply online by May 13, 2016
 - Responses will be emailed by the third week of June.

Undergraduate Advanced Track

- The undergraduate advanced track is designed for IEOR undergraduate students with the desire to pursue graduate work. Students with a minimum cumulative G.P.A. of 3.4 and faculty approval have the opportunity to participate. Students are invited to [apply to the track](#) upon the completion of their sophomore year. Advanced track students are required to take higher level IEOR courses including:

IEOR E4004 instead of IEOR E3608

IEOR E4106 instead of IEOR E3106




IEOR E4403 instead of IEOR E4003

and MATH V2500

- Students successfully completing the requirements of the undergraduate advanced track will receive recognition on their academic record.

Keep In Mind

- Add/Drop Policy for required courses (IEOR 3608, 3106 and 4404)
 - Petition for approval; email advising@ieor.columbia.edu
- Study Abroad - Junior year spring best
- Graduate School? Talk to your advisor
- Academic Dishonesty
 - Just don't do it; all cases are reported to the Dean

INDUSTRIES	COMPANIES
FINANCIAL SERVICES	
PROFESSIONAL SERVICES	
LOGISTICS & SUPPLY CHAIN	 <p>FIND OUT IF WE'RE DELIVERING TO YOUR NEIGHBORHOOD!</p>

Recent Graduates

Recent graduates have found positions in prestigious organizations:

- Major Financial Services: Barclay's Capital, Bank of America, BlackRock, Bloomberg, Citigroup, Credit Suisse, DE Shaw & Co., Deutsche Bank, JPMorgan Chase, Goldman Sachs, HSBC, Morgan Stanley, UBS
- Technology: Google
- Consulting: Accenture, Deloitte, KPMG, McKinsey & Co.
- Service/Manufacturing: Amazon.com, FreshDirect
- Public Service Agencies: Port Authority of NY/NJ, UPS

Entrepreneurship, Leadership and Consulting (ELC) Club

- Columbia entrepreneurship leadership and consulting club (ELC) is dedicated to enhance the spirit of entrepreneurship, the skills of leadership and the profession of consulting, within the student body of Columbia University.

<http://elc-columbia.weebly.com/>

elc@columbia.edu



ELC Activities

- Training/Workshops
- Seminars
- Case study Groups
- Small Business Consulting
- Real Project consulting
- Business idea development
- Networking events



INFORMS Chapter

The purpose of INFORMS is:

- Promote interest in EMS, FE, IE, and EMS
- Facilitate the exchange of ideas and information regarding methods and techniques in the field
- Foster a sense of community among students
- Provide mentoring for students seeking careers or higher education
- Connect students with speakers from industry and academia

<http://sites.google.com/site/cuinforms/>
CUINFORMS@gmail.com

IEOR Department Events

Every year, the IEOR Department hosts a number of events, including:

- Seminars
- Social Events
- Faculty Lunches
- Field Trips
- Alumni Socials
- Panel Discussions



IEOR Department

www.ieor.columbia.edu

Room 315 Mudd