IOMS Course Electives
IS Electives

Fall 2015

INFO-GB.2335 Programming in Python and Fundamentals of Software Development
INFO-GB.2336 Intro to Data Science for Business Analytics
INFO-GB.3306 Data Visualization
INFO-GB.3322 Design & Development: Web and Mobile Apps
INFO-GB.3336 Data Mining for Business Analytics
INFO-GB.3350 Financial Information Systems
INFO-GB.3355 Globalization, Open Innovation, and Crowdsourcing: New Ways of Organizing
INFO-GB.3362 Emerging Tech and Business Innovation
Programming in Python

“Enter the Age of Information! Write programs, find and analyze data, build applications – no experience necessary!”

Is there a pre-requisite? No.
All you need is the desire to learn!

What will I learn?
How to get data from the web and analyze it.
How to build connected web apps.
All this while learning the basics of programming.

Topics/Skills Covered
• Programming basics
• Web scraping
• Web crawling
• Data analysis
• Data visualization
• Web app development

Course Number: INFO-GB.2335
Instructor: Prof. Hardeep Johar
Technical Background Required: None
Schedule for Fall 2015: Tuesdays/Thursdays 9:00 – 10:20AM
Counts toward specializations in: MANAGEMENT OF TECHNOLOGY & OPERATIONS
“Change the way you think about data!”

How to approach business problems data-analytically?

How to improve decision-making using data mining?

Topics/Skills Covered
- Fundamental principles and techniques of data mining processes, algorithms, and systems
- Develop data-analytic thinking
- Hands-on work with data mining software

Course Number: INFO-GB.2336

Instructor: Professors Foster Provost and Brian Dalessandro

Technical Background Required: Ability to program in python required

Schedule for Fall 2015 (two sections): Tuesdays 6-9pm and Wednesdays 6-9pm

Counts toward specializations in: BUSINESS ANALYTICS, DIGITAL MARKETING, FINANCIAL SYSTEMS & ANALYTICS, MANAGEMENT OF TECHNOLOGY & OPERATIONS, MARKETING, SUPPLY CHAIN MANAGEMENT & GLOBAL SOURCING
Design and Development of Web and Mobile Apps

“Mobilize your startup idea!”

How does one develop a mobile app?

How do we support all the different devices?

How do we make money?

Topics/Skills Covered
- Web page development w. Dreamweaver
- Cascading Style Sheets
- Javascript, JQuery, JQuery Mobile
- Phonegap – move to mobile
- Mobile Ads
- Restful Web Services
- AJAX, Json connections to backend services

Course Number: INFO-GB.3022

Instructor: Professor Norman White

Technical Background Required: Some programming, some SQL

Schedule for Fall 2015: Mondays 6-9PM

Counts toward specializations in: DIGITAL MARKETING, MANAGEMENT OF TECHNOLOGY AND OPERATIONS
Data Mining for Business Analytics

"Change the way you think about data!"

How to approach business problems data-analytically?

How to improve decision-making using data mining?

Topics/Skills Covered

• Fundamental principles and techniques of data mining processes, algorithms, and systems
• Develop data-analytic thinking
• Hands-on work with data mining software

Course Number: INFO-GB.3336
Instructor: Professors Stanislav Mamonov and Claudia Perlich
Technical Background Required: None
Schedule for Fall 2015 (two sections): Thursdays 6-9pm and Saturdays 9am-12pm
Counts toward specializations in: BUSINESS ANALYTICS, DIGITAL MARKETING, FINANCIAL SYSTEMS & ANALYTICS, MANAGEMENT OF TECHNOLOGY & OPERATIONS, MARKETING, SUPPLY CHAIN MANAGEMENT & GLOBAL SOURCING
Data Visualization

“Good visualizations present a visual interpretation of data and do so by improving comprehension, communication, and decision making.”

How can we use visualization to help our audience see where obvious correlations, relationships, outliers, or patterns exist?

Topics/Skills Covered
- Tells stories with data
- Present data with visual representations for your target audience, task, and data
- Use Tableau, R and other tools to create rich interactive and animated displays.

Course Number: INFO-GB 3306.10
Instructor: Prof. Kristen Sosulski
Technical Background Required: None, but basic data analytic skills are helpful
Schedule for Fall 2015: Thursdays 6:00pm-9:00pm
Counts toward specializations in: BUSINESS ANALYTICS
Financial Information Systems


How does your money move?

Are US markets rigged?

Market infrastructure

Topics/Skills Covered
• Apple Pay, Bitcoin, Fedwire
• Credit, Debit Cards, Crypto
• High Frequency Trading
• Dark Pools and Markets
• Execution Management Systems
• Clearance and Settlement

Course Number: INFO-GB.3350

Instructor: Prof. Bernard Donefer

Technical Background Required: None

Schedule for Fall 2015: Tuesdays 6-9pm

Counts toward specializations in: FINANCIAL SYSTEMS AND ANALYTICS
Globalization, Open Innovation, Crowdsourcing: New Ways of Organizing

“Where do you get expertise, knowledge, and ideas”

How to decide what is done inside vs. outside your firm and/or country?

How to get innovation through outsourced relationships?

What is crowdsourcing and when and how to use it?

Course Number: INFO-GB.3355

Instructor: Prof. Natalia Levina

Technical Background Required: None

Schedule for Fall 2015 (two sections): Tuesdays 1:30-4:20pm and Wednesday 6-9pm

Counts toward specializations in: **GLOBAL BUSINESS, STRATEGY, SUPPLY-CHAIN MANAGEMENT & GLOBAL SOURCING, MOTO, AND BUSINESS ANALYTICS**

Topics/Skills Covered

- Strategic sourcing decisions
- Open innovation models
- Governance and contracting
- Distributed team leadership
- Crowdsourcing:
  - Online Labor Markets
  - Innovation Contests
  - Innovation Communities
Emerging Technologies and Business Innovation

“The Magic Quadrant of business and technology: complex business issues, IT issues, and their interaction effects”

Questions:
Will a team of robots defeat San Antonio Spurs by 2035?
Should a major wireless company adopt the CDMA or GSM standard?
Is innovation a random serendipitous process, or is it a deep and enduring capability inside an organization?

Major Themes
• Interaction between business problems and tech solutions
• Emergence and evolution of new technologies
• Innovation: understanding principles and nature of tech innovation

Examples of Cases: Akamai, Amazon Web Services, Google, Android, Cognizant

Course Number: INFO-GB.3362
Instructor: Prof. Alex Tuzhilin
Technical Background Required: None
Schedule for Fall 2015: Mondays 6-9pm
Counts toward specializations in: ENTERTAINMENT, MEDIA & TECHNOLOGY, ENTREPRENEURSHIP & INNOVATION, MANAGEMENT OF TECHNOLOGY & OPERATIONS, SUPPLY CHAIN MANAGEMENT & GLOBAL SOURCING
IS Electives

*Subject to Change*

- INFO-GB.2318 Digital Strategy
- INFO-GB.2335 Programming in Python and Fundamentals of Software Development
- INFO-GB.2346 Dealing with Data
- INFO-GB.2350 Trading Strategies & Systems
- INFO-GB.3336 Data Mining for Business Analytics
- INFO-GB.3351 Risk Management Systems

NYU Stern course descriptions can be found on the Registrar’s site.
OM Electives

Fall 2015

OPMG-GB.2350  Decision Models and Analytics

OPMG-GB.2313  Ops in Entertainment: Las Vegas

OPMG-GB.2360  Real Estate Development & Entrepreneurship
Decision Models and Analytics

“How decisions should be based on facts, objectively considered - What I call the fact-founded, thought-through approach to decision making” – Marvin Bower, founder of modern-day McKinsey and the father of modern management consulting

How can I model business problems (and solve them in Excel)?

How can I construct and solve optimization and simulation models?

Topics/Skills Covered

- Finance: portfolio selection, option pricing, currency trading
- Operations: supply chain design, logistics
- Marketing: demand forecasting, pricing

Course Number: OPMG-GB.2350

Instructor: Prof. Arash Asadpour and Prof. David Juran

Technical Background Required: None

Schedule for Fall 2015 (two sections): Tuesdays/Thursdays 10:30-11:50am and Thursdays 1:30-4:20pm

Counts toward specializations in: BUSINESS ANALYTICS, FINANCIAL SYSTEMS & ANALYTICS, MANAGEMENT OF TECHNOLOGY & OPERATIONS, SUPPLY CHAIN MANAGEMENT & GLOBAL SOURCING
OM Electives

Spring 2016 – PRELIMINARY Course Offerings
*Subject to Change*

OPMG-GB.2350 Decision Models and Analytics

OPMG-GB.2306 Supply Chain Management

OPMG-GB.2360 Real Estate Development & Entrepreneurship

OPMG-GB.3330 Revenue Management & Pricing

OPMG-GB.2351 Decision Making Under Uncertainty

NYU Stern course descriptions can be found on the Registrar’s site.