ISOM Electives
Fall Offerings*

- BUS 554. Advanced Data Science
- BUS 555/555P Appcology: New Commerce Infrastructure Systems (NCIS)
- BUS 651/651P. Strategic Decision Analysis
- BUS 653. Operations Strategy
- BUS 659/659P. Process Analysis and Six Sigma

*subject to change

Spring Offerings*

- BUS 556/556P. Analytics for e-Markets
- BUS 557. Management Science in Spreadsheets
- BUS 651/651P. Strategic Decision Analysis
- BUS 652/652P. Healthcare Operations & Technology Management
- BUS 655/655P Business Forecasting

*subject to change

All Elective Offerings are open to both day and evening MBA students.
Tell Me More!

• See appendix to slide deck for detailed course descriptions and instructor contact info
• Covered information systems and operations management in core
• Electives like Appcology and Operations Strategy delve deeper into topics within ISOM
• Electives like Advanced Data Science, Strategic Decision Analysis and Six Sigma provide tools that can be applied in many fields
BUS 554: Advanced Data Science
(day offering)

• Interdisciplinary
  – Business
  – Computer science
  – Statistics

• Data acquisition, data cleaning, storage and retrieval, data analysis

• Python and R

• Useful for anyone who will have to interface with decision science teams

• Geared toward top 15-20% of GBS students in terms of quantitative and/or computer skills
Bus 651/651P: Strategic Decision Analysis
(day and evening offering)

• Analysis of decision problems focusing on strategic interaction and the complexity of multiple players

• Applications:
  – models of competition and cooperation
  – product introduction and pricing
  – strategic moves
  – negotiation, auctions & bidding
  – fair division
  – coalitions, voting and group decisions

• Useful for anyone who has to make strategic decisions - Especially useful for consultants or others who have to analyze decision situations and make recommendations.
BUS 659/659P: Process Analysis and Six Sigma (day and evening offering)

• Process improvement methodology
• Used by 1000s of companies in both manufacturing and services
• Course is intended for a general audience
• Useful for anyone who will end up working for a company doing Six Sigma or who works as a consultant that deals at all with operations
BUS 555/555P Appcology: New Commerce Infrastructure Systems
(evening offering)

• Ecology and design of apps in the mobile commerce infrastructure
  – Design and implementation of apps
  – Internet of things/machine to machine communication
  – New commerce infrastructure – e.g., e-books, 3-D printing

• Frequent outside speakers and presenters

• Project oriented involving development

• Ends with “venture voting” with angels, VCs and developers evaluating plans and products
BUS 653: Operations Strategy
(day and evening offering)

• How can operations create and sustain competitive advantage?
  – Value proposition
  – Design of operations to support value proposition
  – Global considerations

• Useful for anyone planning a career specifically in operations or those with broader interests who may in the future need to analyze and improve operations for strategic purposes.
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Appendix
This course is an advanced analytics course focusing on data science. Data science is an emerging interdisciplinary field that draws from computer science, statistics, business, as well as other fields. The key phases of data science projects will be discussed in the course: data acquisition, data cleaning, storage and retrieval, and data analysis. Students should expect to face unstructured problems that will produce significant frustration (all a part of functioning in this arena). Learning some computer programming is fundamental part of this course (Python and R). The course is intended only for students in the top 20% of the population of GBS students in terms of quantitative or computer skills. Before signing up for this course, review the information at DataScienceSource.com/GBSCourseInfo to make sure that the course and you are a good fit. Also, feel free to contact george.easton@emory.edu for more information.
The course will explore issues associated with the emerging types of *applications and services* changing forms of software ecosystems and commerce interactions. We will involve both design and development of real apps, gizmos, widgets.

**Engage in New Software Environments:** With the assistance and experience of actual app developers, we will explore the design and creations of these “snack-size “applications for mobile and desktop environments. The course will consider the opportunities for new patterns of communication between organizations and their mobile stakeholders. (Visit [http://www.emory.edu/BUSINESS/app/](http://www.emory.edu/BUSINESS/app/) for more information)
Advanced topics and tools for analysis of decision problems, focusing on the complication of **multiple** decision makers. The course starts with the fundamentals of game theory and develops conceptual frameworks and analytical tools for strategic thinking and action. Applications include models of competition and cooperation, strategic moves, negotiation, auctions & bidding, fair division, coalitions, voting and group decisions, and large systems of decision makers.

In addition, we revisit the underlying psychology of decision makers – in ourselves and in the others we interact with – and develop methods for overcoming natural weaknesses and “decision traps” in strategic interactions.

Instructor: michael.miller@emory.edu
This course aims to assist students in formulating an operations strategy and in evaluating its impact on the bottom line. The course considers a variety of possible ways in which to compete on operations, including low cost, high quality, flexibility or speed of customer response, and innovation. In doing so, the course also examines the complexities associated with global operating systems, including the hidden costs of outsourcing and offshoring. (Contact: eve.rosenzweig@emory.edu for more information)
Process analysis is a key component of Six Sigma programs. Six Sigma is an approach for performance improvement that was made famous by GE and is currently being implemented by thousands of companies. The analytical skills you learn in this course are important to many employers and can be foundational for a career in operational performance improvement.

(Contact geaston@emory.edu for more information)