DECISION SCIENCE AND OPERATIONS MANAGEMENT (DSOM)

RESTRICTIONS

Courses under this subject code may have program (major, minor, certificate) specific enrollment restrictions. The Courses (https://catalog.umkc.edu/course-offerings/undergraduate/) section of the Catalog shows all courses offered by UMKC. Specific course restrictions are detailed in Pathway. If you have questions about your course options, please contact Roo Advising (or your academic advisor).

Please select the 'COURSES' tab above to view all courses within this subject code.

Courses

DSOM 211 Business Analytics I Credits: 3
Business Analytics I is an engaging, interactive course, ensuring the student has relevant, useful analytic skills applicable in both coursework and workplace. The student will learn in an interdisciplinary fashion, by analyzing practical business scenarios from Accounting, Finance, Marketing, Operations, and Supply Chain Management. The student will become proficient in spreadsheet use for data administration, analysis, and visual presentation. The statistical analysis focus in Business Analytics I is on descriptive and predictive measures, equipping the student for analysis, reporting, and business forecasting.
Prerequisites: MATH 110 or MATH 120 or higher; or ALEKS Score of 61 or higher; or MyMathTest College Algebra score of 70% or higher; or ACT Math Sub-score of 28 or higher; or SAT Math Sub-score of 660 or higher.

DSOM 311 Business Analytics II Credits: 3
Business Analytics II explores data science, including database access/query, big data, cloud computing, and the internet of things (IoT). The student will consider business ethics, information security, and privacy concerns in today's virtual/gig economy. The student will learn to integrate data from outside sources into various platforms, including Excel, Tableau, and Domo. The student will learn prescriptive analytics and will practice useful optimization methods. Practical interdisciplinary business exercises will draw from Accounting, Finance, Marketing, Operations, and Supply Chain Management, for future use.
Prerequisites: DSOM 211 or STAT 235 or STAT 115 or MOTRMATH 110 and completion of 45 hours.

DSOM 340 Supply Chain and Operations Management Credits: 3
The student will become familiar with and appreciate the concepts, models, methods, and technologies of supply chain and operations management in modern enterprises. Students will become familiar with the integrated view of procurement, operations and logistics management. Students will also understand the management of the flow of products from raw material sourcing and acquisition through delivery to the final user. Students will also become familiar with the modern technologies used in supply chain and operations management.
Prerequisites: Restricted to students in a Bloch School major or minor, BIT and BAS students.

DSOM 346 Service Sector Analytics Credits: 3
A substantial majority of US workers are employed in the service sector, including industries such as accounting, banking, education, finance, healthcare, information technology, hospitality, retail, marketing, project management, and supply chains. This course introduces concepts, models, and methods of decision-making in service operations management, applying practical examples to these various industries. Students will study approaches to capacity constraints, demand planning and forecasting, quality, scheduling, queuing, and wait times. Systems-based decision analysis and software applications will be employed as a means to effectively manage the operations functions of service organizations.
Prerequisites: DSOM 340.

DSOM 432 Spending Analytics, Contracts, and Risk Management Credits: 3
Students will advance to competency their understanding of the role of contracting, sourcing and supply management to support firm strategies. A comprehensive review of the process of costing, pricing, supplier evaluation and development and product cost aggregation will be used in analyzing spend and improving the supply chain partnerships, transactional relationships and intermediary distributors, agents and brokers with the goal of risk mitigation, cost efficiency and value added.
Prerequisites: DSOM 340.

DSOM 442 Logistics, Transportation, Warehousing, and Distribution Credits: 3
Logistics, Transportation, Warehousing and Distribution teaches effective, efficient design and management of supply chain networks, including complexities and challenges of warehousing, channel distribution and transportation, global logistics, value chains and performance management. We focus on practical examples of integrated networks of activity and data-driven performance-based logistics decisions.
Prerequisites: DSOM 340.

DSOM 443 Project Management Credits: 3
Planning and control of projects, to include network models, risk analysis, time reduction, resource scheduling, leadership, and evaluation.

DSOM 444 Digital Transformations and Supply Chain Credits: 3
This course provides the foundation for understanding the key issues associated with the digital transformation in the supply chain landscape and its implications for security and business continuity. Students learn about emerging technologies such as artificial intelligence (AI), blockchain, cloud computing, and the Internet of things (IOT) as they relate to operations and supply chain management. They learn how these technologies can contribute to the flexibility, traceability, compliance, and accountability in production, transportation, warehousing, and distribution. They also learn about the security risks associated with the use of these technologies.
Prerequisites: DSOM 340.

DSOM 445 Strategic Sourcing and Supplier Relationship Management Credits: 3
This course explores the roles of procurement and strategic sourcing as components of an overall supply chain strategy, and the impact this strategy has on the competitive success and profitability of organizations. The course is structured into three segments: before you source, how to source, and after sourcing.
Prerequisites: DSOM 340.

DSOM 458 Data Visualization Credits: 3
Data visualization is the art and science of turning data into clear, compelling stories using graphics and dashboards that can be easily understood by a target audience. This course emphasizes the narrative structure of communicating through data visualization and culminates with a data storytelling project. Students will learn to use a leading data visualization tool – Tableau – through a series of in-class exercises, videos and assignments. Students will employ techniques rooted in design, psychology, and cognitive science and engage in hands-on activities to critique, improve and create visualizations and stories that will resonate with the target audience.

DSOM 487 Special Topics Credits: 3
Special topics in decision science and operations management.

DSOM 496 Internship: Decision Science and Operations Management Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Internship coursework is evaluated on a credit/no credit basis.
Prerequisites: Departmental consent.

DSOM 497 Special Topics: Decision Science and Operations Management Credits: 1-3
An opportunity for students to integrate their academic studies via employment with a business/organization in the community.
Prerequisites: Departmental consent.