OPERATIONS & SUPPLY CHAIN MANAGEMENT (OSCM)

OSCM 5510 Business Statistics With Computer Applications
[3 credit hours]
The application of statistics to business problem solving. Topics include descriptive statistics, probability theory, confidence intervals, hypothesis testing, sampling, ANOVA, chi#square tests, regression and correlation analysis, and concepts of business analytics.

OSCM 5520 Analysis of Manufacturing and Service Systems
[3 credit hours]
Concepts, methods, tools and techniques for designing and managing manufacturing and service systems in the context of a supply chain are discussed. Topics include creating flexible and efficient systems for producing services and goods, total quality management, inventory management, and scheduling.
Prerequisites: OPMT 5510 with a minimum grade of C or OSCM 5510 with a minimum grade of C

OSCM 6250 Essentials of Business Analytics
[3 credit hours]
This course provides a broad understanding of tools, techniques and business issues in using business analytics. It extends data visualization and predictive analysis tools gained in statistics courses. It also introduces decision analysis and develops comprehension of evaluative tools such as spreadsheet modeling. Skills in problem identification and analysis will be developed through the use of cases.

OSCM 6270 Simulation and Waiting Lines
[3 credit hours]
Students are introduced to modeling uncertainty in supply chain systems using simulation. Simulation will be introduced through spread sheet as well as simulation software (e.g. , @Risk, Simul8, ARENA). Topics such as fitting distributions, validation, verification, confidence intervals, experimental design as well an introduction to waiting line models and comparison of simulation with analytical models will be covered.
Prerequisites: OPMT 5520 with a minimum grade of C or OSCM 5520 with a minimum grade of C or BUAD 3020 with a minimum grade of C

OSCM 6350 Prescriptive Analytics
[3 credit hours]
This course requires students to apply software tools that are used within businesses for advanced modeling practices. In particular, students will explore prescriptive analytics techniques used in optimization and simulation. Students are expected to demonstrate the skills learned in this class with course assignments based on real-world cases.
Term Offered: Spring, Fall

OSCM 6550 Business Analytics and Cases
[3 credit hours]
The goal of this course is to present an emerging or new topic in business analytics, for which we do not have a regular course. Students learn how to make optimal business strategy/decision by applying business analytics techniques and tools through case-based study.
Prerequisites: OSCM 5520 with a minimum grade of D-
Term Offered: Spring

OSCM 6680 Quality Management and Six Sigma
[3 credit hours]
The course introduces students to the TQM philosophy, concepts and statistical theory behind the tools will be discussed. It also addresses process improvement, lean, six sigma and related topics. Provides students with an overall approach for the design of a system to manage quality and reliability along the entire value chain.
Prerequisites: OPMT 5520 with a minimum grade of C or OSCM 5520 with a minimum grade of C or BUAD 3020 with a minimum grade of C

OSCM 6690 Supply Chain Resources Management
[3 credit hours]
Study of operations planning, scheduling, and inventory systems with tools such as MRP, JIT and bottleneck approaches in the context of supply chains through business cases where appropriate.
Prerequisites: OPMT 5520 with a minimum grade of C or OSCM 5520 with a minimum grade of C or BUAD 3020 with a minimum grade of C

OSCM 6780 ERP Systems Process Management
[3 credit hours]
This course will provide students an overview of the fundamental business processes and examination of the application of business enterprise software using SAP. Issues include software deployment that supports transaction processing in the business supply chain. Also, students will work on various hands-on exercises including process of entire business cycle with a fictitious company and implementation of simple application with netweaver development platform.
Term Offered: Fall

OSCM 6950 Capstone Project
[3 credit hours]
In this culminating project, students draw on the breadth and depth of the curriculum to address an industry supplied problem in small teams. Students will explore descriptive, prescriptive and/or prescriptive analytics as is appropriate to their design project.
Prerequisites: INFS 6450 with a minimum grade of D- and OSCM 6350 with a minimum grade of D-
Term Offered: Spring, Summer, Fall

OSCM 6960 Masters Thesis
[1-6 credit hours]
Master's thesis: To study a research problem in depth and solve the problem and write an academic or scholarly paper or develop a teaching instrument such as case or game based on the research.
Prerequisites: OPMT 5520 with a minimum grade of C or OSCM 5520 with a minimum grade of C and INFS 6750 with a minimum grade of C

OSCM 6980 Special Topics in Operations and Supply Chain Management
[3 credit hours]
The goal of this course is to present an emerging or new topic in Operations and Supply Chain Management for which we do not have a regular course.
Prerequisites: OSCM 5520 with a minimum grade of C or OPMT 5520 with a minimum grade of C

OSCM 7520 Analysis of Manufacturing and Service Systems
[3 credit hours]
Concepts, methods, tools and techniques for designing and managing manufacturing and service systems in the context of a supply chain are discussed. Topics include creating flexible and efficient systems for producing services and goods, total quality management, inventory management, and scheduling.
Prerequisites: OPMT 5510 with a minimum grade of C or OSCM 5510 with a minimum grade of C

OSCM 8270 Simulation and Waiting Lines
[3 credit hours]
Students are introduced to modeling uncertainty in supply chain systems using simulation. Simulation will be introduced through spread sheet as well as simulation software (e.g. , @Risk, Simul8, ARENA). Topics such as fitting distributions, validation, verification, confidence intervals, experimental design as well an introduction to waiting line models and comparison of simulation with analytical models will be covered.
Prerequisites: OPMT 5520 with a minimum grade of C or OSCM 5520 with a minimum grade of C

OSCM 8680 Quality Management and Six Sigma
[3 credit hours]
The course introduces students to the TQM philosophy, concepts and statistical theory behind the tools will be discussed. It also addresses process improvement, lean, six sigma and related topics. Provides students with an overall approach for the design of a system to manage quality and reliability along the entire value chain.
Prerequisites: OPMT 5520 with a minimum grade of C or OSCM 5520 with a minimum grade of C

OSCM 8690 Supply Chain Resources Management
[3 credit hours]
Study of operations planning, scheduling, and inventory systems with tools such as MRP, JIT and bottleneck approaches in the context of supply chains through business cases where appropriate.
Prerequisites: OPMT 5520 with a minimum grade of C or OSCM 5520 with a minimum grade of C or BUAD 5520 with a minimum grade of C