

SCMT - SUPPLY CHAIN MGMT

SCMT 610 Business Analytics

Credits 1 to 3. 1 to 3 Lecture Hours. Utilization of quantitative tools such as forecasting, optimization and Monte Carlo simulation in order to deal with uncertainties in business and to assist in making better business decisions. May be repeated up to 3 hours credit. Classification 6 students may not enroll in this course. **Prerequisite:** Enrollment is limited to MBA students.

SCMT 611 Statistical Foundation of Data Analytics

Credits 3. 3 Lecture Hours. Collection, tabulation and presentation of numerical data; sampling, estimation of averages and variation, probability and error, hypothesis testing, linear and logistic regression; practical applications to functional problems in accounting, finance, marketing and management.

SCMT 614 Operations Management

Credits 1 to 3. 1 to 3 Lecture Hours. Theory and applications of designing, analyzing and controlling productive systems in the allocation and use of resources to produce goods and services. May be repeated for up to 3 hours credit. Classification 6 students may not enroll in this course. **Prerequisites:** SCMT 610 or equivalent; enrollment is limited to MBA students.

SCMT 616 Supply Chain Management

Credits 1 to 3. 1 to 3 Lecture Hours. Focus on the integrated management of the total product delivery system; purchasing, inventory management and distribution functions with emphasis on physical and information flows. **Prerequisites:** Graduate classification or approval of instructor.

SCMT 635 Sourcing and Procurement Management

Credits 3. 3 Lecture Hours. Processes to identify and manage suppliers for goods and services to support operations; including sourcing, contracting, negotiations, buying procedures, cost and price analysis, vendor relations, auditing and inspection, supplier relations and applications to information technology systems. **Prerequisites:** Graduate classification or approval of instructor.

SCMT 637 Supply Chain Modeling and Optimization

Credits 3. 3 Lecture Hours. Application of quantitative decision-making techniques to management decision problems; focus on model development, solution and implementation of results with particular emphasis on linear and mixed-integer programming. **Prerequisites:** Graduate classification or approval of instructor.

SCMT 638 Information Technology in Supply Chain Management

Credits 3. 3 Lecture Hours. Review, evaluate, and contribute to the existing knowledge base regarding the management of information flows from automatic identification systems such as RFID. **Prerequisites:** ISEN 615 and PhD students or Masters students with a thesis degree plan or approval of instructor.

SCMT 640 Global Supply Chain and Logistics

Credits 3. 3 Lecture Hours. Study of the global environment of business; development of a conceptual framework and analytical skills for managing supply chains spanning multiple countries and regions; logistics and risk management of firms operating in the global market. **Prerequisites:** Graduate classification or approval of instructor.

SCMT 645 Business Process Design

Credits 3. 3 Lecture Hours. Introduction to business process design and analysis; tools and techniques to document, analyze and improve business processes; Six Sigma process design and improvement; process metrics; computer simulation of processes; aligning business process with organizational goals and objectives; and case study of real world business problems. **Prerequisites:** Graduate classification or approval of instructor; SCMT 614, SCMT 660 or approval of instructor.

SCMT 661 Operations Strategy

Credits 3. 3 Lecture Hours. Study of how to build and evaluate the "operating system" of the firm to maximize value; study of how to tailor the firm's operational competencies, assets and processes to a specific business strategy with focus on product companies. **Prerequisites:** Graduate classification or approval of instructor.

SCMT 670 Service Operations Models

Credits 3. 3 Lecture Hours. Development of analytical techniques used by large, multiple site service businesses; study of analytical tools to augment or replace the more qualitative management decision making historically prevalent in service sector firms. **Prerequisites:** Graduate classification or approval of instructor.

SCMT 675 Supply Chain Security

Credits 3. 3 Lecture Hours. Security of global supply chains; selection of appropriate technologies utilized in securing global supply chains; exploration of planning responses to disaster events in relation to the delivery and receipt of goods and services; design of draft security policies for an organization's supply chain. **Prerequisites:** Graduate classification or approval of instructor.

SCMT 680 Practical Lean Business Systems

Credits 3. 3 Lecture Hours. Provision of key tools for operational transformation using practical lean principles; exploration of how time pressures and turnaround needs in organizations can benefit from lean implementations; exploration of lean strategies such as root cause analysis, batch to pull processes, value stream mapping, level loading, line balancing. **Prerequisites:** Graduate classification or approval of instructor.

SCMT 681 Seminar

Credits 1 to 3. 1 to 3 Lecture Hours. Evaluation of the historical evolution, current research, and significant issues in management information systems, production/operations management, or management science. May be repeated for credit five times as content varies. **Prerequisites:** Doctoral classification and approval of department head.

SCMT 685 Directed Studies

Credits 1 to 4. 1 to 4 Other Hours. Directed study on selected problems using recent developments in business research methods. **Prerequisites:** Approval of instructor and graduate advisor.

SCMT 689 Special Topics in...

Credits 1 to 4. 1 to 4 Lecture Hours. 0 to 4 Lab Hours. Selected topics in identified areas of operations and supply chain management.

SCMT 691 Research

Credits 1 to 23. 1 to 23 Other Hours. Research for thesis or dissertation. Classification 6 students may not enroll in this course.

SCMT 701 Supply Chain and Analytics Career Management

Credit 1. 1 Lecture Hour. Preparation for a career in supply chain and analytics; identification of various types of professional opportunities in supply chain and analytics; development of career goals into strategies for life-long career success. **Prerequisites:** Graduate classification or approval of instructor.

SCMT 702 Supply Chain Communication and Leadership

Credit 1. 1 Lecture Hour. Preparation for effective oral and written communication for careers in supply chain and analytics; study of principles of leadership; emphasis on effectively communicating the outcomes of analytical modeling and analysis to various stakeholders. **Prerequisites:** Graduate classification or approval of instructor.

SCMT 705 Global Operations

Credits 1 to 4. 1 to 4 Lecture Hours. Concepts, techniques and tools to design, analyze and improve core operational capabilities; production control; inventory management; quality management; process design; forecasting; product design; facility layout; capacity planning. **Prerequisite:** For Master of Science in Business students only.