OPERATIONS AND TECHNOLOGY MANAGEMENT (OTM)

OTM 300 — OPERATIONS MANAGEMENT
3 credits.
Managing operations is about people, information, equipment, and materials and how these are combined to produce and/or deliver goods and services to customers. Emphasis is on how systems and processes can be designed, managed, and improved to achieve operations excellence and competitive advantage. Enroll Info: None
Requisites: Sophomore standing or member of Business Exchange program
Repeatable for Credit: No

OTM 351 — PRINCIPLES AND TECHNIQUES OF QUALITY MANAGEMENT
3 credits.
Introduces students to the terminology, concepts, principles, and techniques for managing and improving quality. Enroll Info: None
Requisites: Sophomore standing and OTM 300
Repeatable for Credit: No
Last Taught: Fall 2017

OTM 365 — CONTEMPORARY TOPICS
1-3 credits.
An exploration of subject areas possibly to be introduced into the business curriculum. Enroll Info: None
Requisites: Sophomore standing and OTM 300
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2018

OTM 370 — SUSTAINABLE APPROACHES TO SYSTEM IMPROVEMENT
3 credits.
Organizations employ a variety of improvement approaches to develop sustainable practices. This course examines innovative system-improvement concepts and methodology that directly address sustainability concerns such as natural capital, emission buildup, and base of the pyramid, while simultaneously strengthening mission-central concerns such as cost, quality, customer, market, revenue, profit, brand, reputation sourcing, and quality of work life. Enroll Info: None
Requisites: Sophomore standing or member of Business Exchange program
Repeatable for Credit: No
Last Taught: Fall 2017

OTM 399 — READING AND RESEARCH-OPERATIONS AND INFORMATION MANAGEMENT
1-6 credits.
Individual work suited to the needs of undergraduate students may be arranged with a faculty member. Enroll Info: None
Requisites: Consent of instructor
Course Designation: Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Fall 2017

OTM 410 — OPERATIONS RESEARCH I
3 credits.
Linear and nonlinear programming with emphasis on applications; the transportation problem, parametric programming, sensitivity analysis, dynamic programming. Enroll Info: None
Requisites: Sophomore standing and (MATH 211, 217, 221 or 275); or member of Business Exchange program
Repeatable for Credit: No
Last Taught: Fall 2015

OTM 411 — OPERATIONS RESEARCH II
3 credits.
Stochastic processes; Markov processes, queuing theory; applications to production and inventory problems. Enroll Info: None
Requisites: Sophomore standing or member of Business Exchange program
Repeatable for Credit: No
Last Taught: Spring 2013

OTM/MARKETING 421 — FUNDAMENTALS OF SUPPLY CHAIN MANAGEMENT
3 credits.
Supply chain management is a cross-functional discipline concerned with the movement of products, services, and information among all links in the value chain. The management of supply chain resources is a way to reduce costs and achieve competitive advantage. Enroll Info: None
Requisites: Sophomore standing, MARKETING 300, and OTM 300; or member of Business Exchange program
Repeatable for Credit: No
Last Taught: Spring 2018

OTM/MARKETING 422 — LOGISTICS MANAGEMENT
3 credits.
Provides a management perspective on the fundamental activities, concepts, and current practices in logistics. Transportation management, order fulfillment, warehousing, global logistics, key performance indicators, outsourcing, and introduction to radio frequency identification and barcoding. Use of case studies and industry speakers. Enroll Info: None
Requisites: Sophomore standing, MARKETING 300, and OTM 300; or member of Business Exchange program
Repeatable for Credit: No
Last Taught: Fall 2017
OTM 442 — DATABASE MANAGEMENT AND APPLICATIONS
3 credits.
Introduces students to the concepts of database analysis, design, implementation, and management. Main topics include conceptual and relational database modeling and design; relational database processing and Structured Query Language (SQL); Microsoft Access. A real-world team project that uses the concepts and technologies taught in the course is an important element. Enroll Info: None
Requisites: Sophomore standing or member of Business Exchange program
Repeatable for Credit: No
Last Taught: Fall 2017

OTM 444 — ECONOMICS OF TRANSPORTATION
3 credits.
Influence of transport costs on economic development, industrial location and market penetration; economic characteristics of carriers; pricing policies and practices in transport; interrelationship of public policy issues and decisions by suppliers and users of transportation. Enroll Info: None
Requisites: (ECON 101 or 111) or member of Business Exchange program
Course Designation: Breadth - Social Science
Level: Advanced
L&S Credit: Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: No
Last Taught: Fall 2013

OTM 451 — SERVICE OPERATIONS MANAGEMENT
3 credits.
Application of operations management principles to the analysis of service-delivery systems in profit and nonprofit organizations. Topics include designing service-delivery systems, location and layout, operations planning and control, yield management, technology and information systems, and service quality management. Enroll Info: None
Requisites: OTM 300
Repeatable for Credit: No
Last Taught: Fall 2017

OTM 452 — PROJECT MANAGEMENT
3 credits.
During their careers, managers spend a significant amount of time either participating in or leading projects. While every project is unique, some concepts and tools in project management apply to a wide range of projects. The aim of this course is to equip students with these concepts and tools, and to develop them into successful project managers (and team members). With that aim in mind, the course will emphasize quantitative aspects of project management while also discussing more qualitative aspects. Key topics include Project Initiation, Scheduling, Resource Management, Monitoring, Valuation, Rework, Agile Project Management, Project Management Analytics and Contracting. Enroll Info: None
Requisites: Sophomore standing
Repeatable for Credit: No

OTM/I SY E 578 — FACILITIES LOCATION MODELS
3 credits.
The theory and methods of facility location. Plant and warehouse siting, plant layout problems and location of service facilities such as hospitals and fire stations. Cases of actual applications. Enroll Info: None
Requisites: OTM 410 or I SY E 323
Repeatable for Credit: No

OTM/I SYE/MATH/STAT 632 — INTRODUCTION TO STOCHASTIC PROCESSES
3 credits.
Topics include discrete-time Markov chains, Poisson point processes, continuous-time Markov chains, and renewal processes. Applications to queueing, branching, and other models in science, engineering and business. Enroll Info: None
Requisites: (MATH/STAT/MATH 431, 309, STAT 311 or MATH 531) and (MATH 320, 340, 341, 375, 421 or 531) or graduate/professional standing or member of the Pre-Masters Mathematics (Visiting International) Program
Course Designation: Breadth - Natural Science
Level: Advanced
L&S Credit: Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2018

OTM/I SYE/MATH 633 — QUEUING THEORY AND STOCHASTIC MODELING
3 credits.
Reliability theory; coherent systems and reliability bounds. Markovian queues and Jackson networks. Steady-state behavior of general service time queues. Priority queues. Approximation methods and algorithms for complex queues. Simulation. Dynamic programming; applications to inventory and queueing. Enroll Info: None
Requisites: I SYE/MATH/OTM/STAT/I SYE/MATH/OTM 632
Course Designation: Breadth - Natural Science
Level: Advanced
L&S Credit: Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2010

OTM 640 — BUSINESS LOGISTICS ANALYSIS
3 credits.
Emphasis on the business logistics process from a managerial perspective; analysis of logistics systems to develop implementation strategies for effective flow of material and information throughout the supply chain. Enroll Info: None
Requisites: (ECON 101 or 111) or member of Business Exchange program
Repeatable for Credit: No
Last Taught: Fall 2014
OTM 654 — PRODUCTION PLANNING AND CONTROL
3 credits.

The role of materials and capacity planning and control in business operations. Manufacturing Resource Planning Systems: aggregate planning, material requirements planning, capacity planning, operations scheduling. Procedures for cellular manufacturing systems. Costing issues in modern planning and control systems. Enroll Info: None

Requisites: Sophomore standing and OTM 300
Repeatable for Credit: No
Last Taught: Spring 2018

OTM/I SY E/INFO SYS 671 — E-BUSINESS: TECHNOLOGIES, STRATEGIES AND APPLICATIONS
3 credits.

Overview of core concepts of e-commerce and e-business technologies, strategies and applications. Covers business-to-consumer, business-to-business and intra-business models by using real-world examples and cases from various industries. Enroll Info: None

Requisites: Senior standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No

OTM 700 — OPERATIONS MANAGEMENT
3 credits.

Management of the operations function in manufacturing and service organizations. Emphasizes the coordination of resources to improve cost, quality, and customer service. Topics include materials, capacity, and project management, operations strategy, forecasting, and process design. Enroll Info: None

Requisites: Declared in an MBA program
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2018

OTM 710 — OPERATIONS RESEARCH I
3 credits.

Linear and nonlinear programming with emphasis on applications; the transportation problem, parametric programming, sensitivity analysis, dynamic programming. Enroll Info: Knowledge of calculus such as MATH 222 or 276 is recommended.

Requisites: Graduate/professional standing or member of Business Exchange program
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2015

OTM 711 — OPERATIONS RESEARCH II
3 credits.

Stochastic processes; Markov processes; queuing theory; applications to production and inventory problems. Enroll Info: Knowledge of business analytics (such as GEN BUS 306) and calculus (such as MATH 222 or 276) is recommended.

Requisites: Graduate/professional standing or member of Business Exchange program
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2013

OTM/MARKETING 722 — LOGISTICS MANAGEMENT
3 credits.

A foundation in transportation, order fulfillment, warehousing, materials planning including MRP, demand planning, import/export fundamentals, SAP/ERP systems, supply chain metrics, and leading supply chain technologies such as RFID. Enroll Info: None

Requisites: Graduate/professional standing or member of Business Exchange program
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2017

OTM 732 — ECONOMICS FOR MANAGERS
3 credits.

Develops and applies economic principles to examine the affect of firm, industry, domestic and global market conditions on both day-to-day managerial decision making and long-term strategic planning. Enroll Info: None

Requisites: Declared in an MBA program
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2018

OTM 744 — ECONOMICS OF TRANSPORTATION
3 credits.

Influence of transport costs on economic development, industrial location and market penetration; economic characteristics of carriers; pricing policies and practices in transport; interrelationship of public policy issues and decisions by suppliers and users of transportation. Enroll Info: Knowledge of microeconomics such as ECON 101 is recommended.

Requisites: Graduate/professional standing or member of Business Exchange program
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2013
OTM 751 — SERVICE OPERATIONS MANAGEMENT
3 credits.
Application of operations management principles to the analysis of service-delivery systems in profit and nonprofit organizations. Topics include designing service-delivery systems, location and layout, operations planning and control, yield management, technology and information systems, and service quality management. Enroll Info: None
Requisites: OTM 700 and GEN BUS 704
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2017

OTM 752 — PROJECT MANAGEMENT
3 credits.
During their careers, managers spend a significant amount of time either participating in or leading projects. While every project is unique, some concepts and tools in project management apply to a wide range of projects. The aim of this course is to equip students with these concepts and tools, and to develop them into successful project managers (and team members). With that aim in mind, the course will focus on broadly applicable concepts and methods and will cover both qualitative and quantitative aspects of project management. Key topics include Project Initiation, Scheduling, Resource Management, Monitoring, Valuation, Risk Management, Agile Project Management, Project Portfolio Management, and Contracting. Enroll Info: None
Requisites: Graduate/professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No

OTM 753 — HEALTHCARE OPERATIONS MANAGEMENT
3 credits.
Healthcare delivery systems around the world struggle with three fundamental issues: patient access to care, quality and safety in the care process (incl. patient and staff satisfaction), and cost of care. In this course, we look at these issues and selected analysis and improvement approaches that the discipline of Operations Management can offer. In doing that, different types of both clinical and non-clinical processes in hospital settings are illustrated. Enroll Info: None
Requisites: Graduate/professional standing or member of Business Exchange program
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2018

OTM/INTL BUS 755 — INTERNATIONAL OPERATIONS: PROBLEMS AND ADMINISTRATION
3 credits.
Organizations and strategies of international and multinational firms. Initiating international operations, joint venture problems, relationships with state enterprises, licensing methods, defenses against adverse government policies (including confiscation), and international business policies and tactics. Enroll Info: None
Requisites: Graduate/professional standing or member of Business Exchange program
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2009

OTM 758 — MANAGING TECHNOLOGICAL AND ORGANIZATIONAL CHANGE
3 credits.
Issues surrounding strategic decisions to adopt new technologies and modern improvement philosophies, the impact these will have on the organization and its members, obstacles preventing successful implementations, and the effective management of change processes. Change triggered by process technologies, and models of change management, form the core of the course. Enroll Info: None
Requisites: OTM 700
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2017

OTM 765 — CONTEMPORARY TOPICS
1-4 credits.
Exploration of advanced subject areas possibly to be introduced into the business curriculum. Enroll Info: None
Requisites: Graduate/professional standing or member of Business Exchange program
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2018

OTM 770 — SUSTAINABLE APPROACHES TO SYSTEM IMPROVEMENT
4 credits.
Innovative system-improvement concepts and approaches that sustainably strengthen mission-central concerns such as quality, cost, customers, markets, revenue, profit, brand, reputation, sourcing, quality of work life, natural capital, buildup of concentrations and base of the pyramid. Enroll Info: None
Requisites: Graduate/professional standing or member of Business Exchange program
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2017
OTM/E P D/GEN BUS 784 — PROJECT MANAGEMENT ESSENTIALS
1 credit.

Techniques that will help to plan, execute, and deliver projects with desired scope on time and on budget. Learn to document clear project objectives and goals, accurately estimate project time and costs, schedule and allocate time-critical resources, and establish feedback systems for optimal project control. Enroll Info: None
Requisites: Graduate/professional standing or member of Business Exchange program
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2018

OTM 799 — READING AND RESEARCH-OPERATIONS AND INFORMATION MANAGEMENT
1-6 credits.

Individual work suited to the needs of graduate students. Enroll Info: None
Requisites: Consent of instructor
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, unlimited number of completions

OTM 860 — SUSTAINABLE DESIGN OF INNOVATIVE PRODUCTS, SERVICES AND SYSTEMS
3 credits.

Principles, concepts and methodology for innovative, sustainable approaches to design of products, services and systems. Enroll Info: None
Requisites: Graduate/professional standing or member of Business Exchange program
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2015

OTM 861 — STRATEGIC SYSTEMS AND SUSTAINABILITY
3 credits.

Innovative concepts and methodology that embed sustainability into strategic organizational systems. Enroll Info: None
Requisites: OTM 770
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2016

OTM 875 — SEMINAR IN OPERATIONS AND TECHNOLOGY MANAGEMENT
3 credits.

Current topics in operations and technology management. Enroll Info: None
Requisites: OTM 700
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2010

OTM 990 — OPERATIONS AND INFORMATION MANAGEMENT- INDEPENDENT RESEARCH PH.D. THESIS
1-12 credits.

Individual work to complete dissertation requirement of Ph.D. program. Enroll Info: None
Requisites: Consent of instructor
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, unlimited number of completions

OTM 999 — READING AND RESEARCH-OPERATIONS AND INFORMATION MANAGEMENT PHD
1-6 credits.

Individual work suited to the needs of Ph.D. students may be arranged both during regular sessions and during the intersession periods. Enroll Info: None
Requisites: Declared in Business PHD
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, unlimited number of completions