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.

Requisites: Sophomore standing
Repeatable for Credit: No
Last Taught: Fall 2017

OTM 351 — PRINCIPLES AND TECHNIQUES OF QUALITY MANAGEMENT
3 credits.

This course introduces students to the terminology, concepts, principles, and techniques for managing and improving quality.

Requisites: GEN BUS 303 or equiv, MHR 300 or equiv
Repeatable for Credit: No
Last Taught: Fall 2017

OTM 365 — CONTEMPORARY TOPICS
1-3 credits.

A course for the exploration of subject areas possibly to be introduced into the business curriculum.

Requisites: Prerequisite varies by topic
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Fall 2017

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.

Requisites: None
Repeatable for Credit: No
Last Taught: Fall 2017

OTM 399 — READING AND RESEARCH—OPERATIONS AND INFORMATION MANAGEMENT
1-6 credits.

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.

Requisites: MATH 211 or equivalent
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.

Requisites: GEN BUS 303 or equivalent, MATH 211 or equivalent
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.

Requisites: So, Jr, or Sr st; Marketing 300
Repeatable for Credit: No
Last Taught: Fall 2017

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.

Requisites: OTM 300 or equiv, Marketing 300 or equiv
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.

Requisites: Sophomore standing
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.

Requisites: ECON 101

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.

Requisites: OTM 300
Repeatable for Credit: No
Last Taught: Fall 2017

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.

Requisites: OIM 410 or Ind Engr 323, or equivalent
Repeatable for Credit: No
Last Taught: Spring 2011

OTM/I SY E 620 — SIMULATION MODELING AND ANALYSIS
3 credits.

Introduction to simulation modeling and analysis techniques with application to production, logistics, service, and other systems. Emphasis on model building, application of basic statistical data analysis, and the use of simulation for design, evaluation, and improvement of such systems. Introduction to available software. Case studies.

Requisites: COMP SCI 302 and STAT 312

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2017

OTM/I SY E/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.

Requisites: MATH 531 or (MATH/STAT/MATH 431, MATH/STAT/MATH 309 or STAT 311) and (MATH 320, 340, 341, 375, or 421) or graduate standing

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: Fall 2017

OTM/I SY E/MATH 633 — QUEUING THEORY AND STOCHASTIC MODELING
3 credits.


Requisites: Math, Ind Engr 632 or cons inst

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.

Requisites: ECON 101
Repeatable for Credit: No
Last Taught: Fall 2014

OTM 654 — PRODUCTION PLANNING AND CONTROL
3 credits.


Requisites: OTM 300
Repeatable for Credit: No
Last Taught: Spring 2017
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.
Requisites: Senior or Graduate standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2014

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.
Requisites: GEN BUS 303 or equiv
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2017

OTM 705 — DATA ANALYSIS AND DECISION MAKING
3 credits.
Students will advance their analytical and decision making skills by developing practical spreadsheet models to evaluate business situations. Fundamental topics in probability, statistics, and constrained optimization will be introduced and used as modeling tools via active learning exercises.
Requisites: Graduate or professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Summer 2008

OTM 710 — OPERATIONS RESEARCH I
3 credits.
Linear and nonlinear programming with emphasis on applications; the transportation problem, parametric programming, sensitivity analysis, dynamic programming.
Requisites: OIM 709 or MATH 222 or cons inst
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.
Requisites: GEN BUS 303 either OIM 709 or MATH 222 or cons inst
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2013

OTM/MARKETNG 722 — LOGISTICS MANAGEMENT
3 credits.
This course provides 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.
Requisites: Graduate or professional standing
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.
This course 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.
Requisites: 1st yr MBA stdt
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2017

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.
Requisites: ECON 101
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.
Requisites: OIM 750 or equiv
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2017
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.

Requisites: Graduate or professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2017

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.

Requisites: Graduate or professional standing
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. Stds may not take both OIM 758 IE 658 for cr

Requisites: OIM 700 or cons inst.
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.

Requisites: Graduate or professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Fall 2017

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.

Requisites: One semester course in statistics
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.

This project management course teaches techniques that will help you 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. This course will not apply toward fulfilling the MBA degree requirements.

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

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

Individual work suited to the needs of graduate students may be arranged both during regular sessions and the intersession periods.

Requisites: Consent of instructor
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Fall 2016

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.

Requisites: None
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.

Requisites: OIM 770 or equiv or consent of instructor
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.

**Requisites:** OIM 700 or equiv

**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.

**Requisites:** Consent of instructor

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement.

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Fall 2017

 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.

**Requisites:** PhD st cons inst

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Fall 2017