

Operations and Information Management (OPIM)

Advances in business knowledge and technology have radically changed business systems and processes – for example, how organizations buy and sell goods and services, integrate their supply chain and logistic systems, and reach or retain customers have all changed. As a result, critical to today's businesses is the ability to get the right information to the right people at the right time, so that both strategic and operational decisions are made properly and quickly. Students majoring in Operations and Information Management will learn to recognize the pivotal roles that operations and information systems play in the business world and to use their knowledge to increase business competitiveness. They are exposed to a range of tools, methods, and techniques for addressing issues such as the design of business operations, the selection and implementation of new technologies, and the creation of processes that effectively connect with customers, suppliers, and distributor channels. Students are prepared to be leaders in the effective utilization of information in business.

Operations and Information Management Curriculum

For the OPIM area of emphasis, students take a common core of the following six courses. See new course numbers

Required Courses

- OPIM 3000 Systems Thinking (3) (now MGMT 4210)
- OPIM 3100 Business Intelligence (3) (now MGMT 3200)
- OPIM 3101 Business Technologies (3) (now MGMT 4220)
- OPIM 4050 Supply Chain Management (3) (now MGMT 4110)
- OPIM 4060 Managing Business Processes (3) (now MGMT 4120)
- OPIM 4850 Senior Seminar in Operations and Information Management (3) (now MGMT 4850)

Students are also encouraged to take other OPIM courses such as:

- OPIM 3030 Mgmt of Service Operations (3) (now MGMT 3100)
- OPIM 4040 IT and Business Strategy (3)
- OPIM 4510 Design of Usable Business Systems (3)

In addition, students inclined to more technical information systems careers are encouraged to take programming courses as business electives (OPIM 2010 Business Application Programming) or as non-business electives (such as: CSCI 1300 Programming, or ATLS 3519 Applied Java programming).

BS/MS Program

The Leeds School of Business offers a unique program that allows undergraduates the opportunity to earn a bachelor's and master's degree simultaneously. The joint program graduates students with a bachelor's degree from the Leeds School of Business and a master's degree from the College of Engineering in telecommunications. For more information, see <http://itp.colorado.edu>.

Career Opportunities

A student completing the OPIM curriculum will be prepared for challenging careers as a business analyst, systems designer, management consultant, project manager, systems integration specialist, and outsourcing coordinator, among others. Employment possibilities include financial operations, health care, management consulting, retail operations, manufacturing, transportation and logistics, service operations, and government. Organizations rely on people with an OPIM background to provide solutions to important problems of productivity, profitability, and competitiveness for variety of business systems. When combined with a second area of emphasis in accounting, finance, management, or marketing, additional opportunities exist for analytic positions within these other business areas. Completing the OPIM curriculum also will help students to earn a Supply Chain Management certificate from the Association of Operations Management (APICS), and a Project Management certificate from the Project Management Institute (PMI).

Course Descriptions: Required Courses

OPIM 3000-3: Systems Thinking

This course is an introduction to systems thinking and the analysis of the interactions of a complex collection of people, processes, organizations, and technologies. Students learn to be creative and critical thinkers who can conceptually model the very complex systems we encounter in our world today. *Prerequisites: BCOR 1010, BCOR 1020, and 52 hours completed. Same as SYST 3000.*

OPIM 3100-3: Business Intelligence

Business organizations require accurate and timely knowledge to make effective operational, tactical, and strategic decisions. This course focuses on how to create and use such knowledge. Topics include problem definition; critical factor isolation; data collection, storage, and querying; transformation of data into knowledge through appropriate analyses and aggregation; and the presentation of the knowledge to decision makers in meaningful ways. *Prerequisites: BCOR 1010, 1020, and 2500. Recommended Prerequisite: OPIM 3000. Same as SYST 3100.*

OPIM 3101-3: Business Technologies

Covers major technologies that underlie today's businesses and e-Commerce, including but not limited to WWW technologies. Emphasizes security issues and solutions at multiple levels of network, systems, personal, organization, and inter-organizational commerce. Aims to help students better understand and evaluate technology-related issues, alternatives, and tradeoffs. Provides core technology background for students entering a technology-related field. *Prerequisite: BCOR 1010, 1020, and 2500. Same as SYST 3101.*

OPIM 4050-3: Supply Chain Management

Explores the key issues related to the design and management of supply chains. Covers the efficient integration of suppliers, production facilities, warehouses, and stores so that the right products in the right quantity reach customers at the right time. Focuses on the minimization of the total supply chain cost subject to service requirements imposed by a variety of industries. *Prerequisite: BCOR 1010, 1020, 2500, and 52 hours completed. Same as SYST 4050.*

OPIM 4060/5060-3: Managing Business Processes

Covers the concepts and tools to design and manage business processes. Emphasizes modeling and analysis, information technology support for process activities, and management of process flows. Graphical simulation software is used to create dynamic models of business processes and predict the effect of changes. Prepares students for a strong management or consulting career path in business processes. *Prerequisite: BCOR 1010, 1020, 2500, and 52 hours completed. Same as SYST 4060/5060.*

OPIM 4850-3: Senior Seminar in Operations and Information Management

The Operations and Information Mgmt. Capstone course integrates many concepts and theories from the OPIM course work into an applied project experience with a real company. Students define a problem and then plan, execute, and deliver a solution. This course requires extensive use of critical thinking and research. In addition, students will hone their written, oral and visual communication skills.

Prerequisite: BCOR 1010, 1020, 2500, any two 4000 level OPIM courses, and 102 hours completed. Same as MGMT 4085, and BCOR 4005. Offered Fall and Spring ONLY.

Course Descriptions: Business Elective Courses**OPIM 2010-3: Business Application Programming**

Uses computer programming to teach a complex problem solving skill. Its two main course objectives are: (1) learn to use a structured problem decomposition method, designed to help decompose a complex problem into manageable sub-problems.

This method is best exemplified in programming but is applicable to any complex business problem. (2) understand the core concepts of programming—such as variable, object model, and control flow—that will help you not only appreciate the power of programming behind modern technologies but also better understand business process models. *Same as SYST 2010.*

OPIM 3030-3: Management of Service Operations

Examines concepts, tools and techniques used in the management of service operations. Focuses on how firms add value and compete with high quality and efficient services. Emphasizes the use of models for designing new services and improving the effectiveness of service processes. Studies the application of technology in the context of productivity, growth and the globalization of services. *Prerequisites: BCOR 1010, 1020, 2500, and 52 hours completed.*

OPIM 4040/5040-3: IT and Business Strategy

Although some companies are very successful in discovering and cultivating innovative technology-enabled business strategies, many fail in the process. This course combines theories and frameworks with practical approaches to provide students with the skills required to help companies identify business opportunities, find appropriate information related technologies, and lead adoption efforts to success. *Prerequisite: BCOR 1010, 1020, 2500, and 52 hours completed. Same as MGMT 4090 and TLEN 5140.*

OPIM 4065-3: International Operations Management

Compares systems of operations management in the United States with those in Japan, Europe, Asia, and South America. Contrasts various regional and national approaches to business, quality management, labor practices, management styles, international competitiveness, productivity, distribution systems, trade practices, and strategies for penetrating foreign markets. Examines different socio-cultural environments, government-business relationships, banking industries, operations strategies, and the potential for transferring operations management practices and techniques between countries. *Prereq., BCOR 2300 (formerly BCOR 2150. Restricted to students with 52 hours completed. Same as MGMT 4070.*

OPIM 4075-3: Sustainable Operations

Addresses important topics in sustainable operations, and how firms use principles of sustainability to reduce costs, add value, and increase competitiveness. Various approaches to reducing waste-streams are considered, including reuse, recycling, recovery, and topics in industrial ecology. Other topics include the role of government regulation and public pressure, comparisons between different national approaches to sustainable operations, individual company programs, and prospects for the future. *Prereqs., BCOR 2300 (formerly BCOR 2150) and 52 hours completed. Same as MGMT 4080.*

OPIM 4510/5510-3: Design of Usable Business Systems

Focuses on the usefulness and usability of systems in organizations. Examines the bottom line implications of information systems and how to create systems that are easy to use for all potential users. Creative and critical thinking to design and build systems are stressed through individual and team exercises. *Prerequisite: BCOR 1010, 1020, 2500, and 52 hours completed.*

OPIM 4820-3: Special Topics in Operations and Information Systems

Experimental seminar offered irregularly to provide opportunity for investigation of new frontiers in operations and information management.

OPIM 4080-3: Project Management Introduces students to multidisciplinary project management concepts and tools, including the relationship between project cost, schedule, scope, quality, and customer satisfaction. Presents both qualitative and quantitative tools used to improve project management performance. This course satisfies the Project Mgmt. Institute's training requirement for certification. *Prerequisites: BCOR 1010, 1020, 2500, and 52 hours completed.*

OPIM 4900 (1-3): Independent Study

Requires prior consent of dean and instructor under whose direction study is taken. Intended only for exceptionally well-qualified business seniors who desire to study an advanced topic. Departmental form required.

OPIM 4910 (1-3): Academic Internship in Operations and Information Management

Offers students the opportunity to gain professional work experience in an operations or information management position while still in school. Provides academically relevant work experience that complements students' studies and enhances their career potential. Includes 100 hours per credit and a course paper. Students may not pre-register for this course, and they must contact the Faculty Advisor for the OPIM Area for approval. *Prerequisite: at least 60 credit hours of coursework and instructor consent.*