

# Operations & Information Management (OPIM)

## Certificate Program

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 each or retain customers. 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. To help students develop this ability, the Leeds School of Business offers the OPIM Certificate.

The OPIM Certificate requires students to complete any three courses in the Operations Management and/or Information Management tracks of the Management and Entrepreneurship major (3 credits each for a total of 9 credits) and either a faculty-supervised OPIM research project (MGMT 4900: Independent Study) or internship (MGMT 4910: Academic Internship in Management). In addition, students are required to maintain an overall GPA of 3.0 or higher for the selected courses and receive a letter grade of "B-" or higher in each of the three courses. Successful completion of the certificate program will appear on the student's transcript.

***The following are examples of how students from different majors might choose their three courses however students may choose any three Operations Management or Information Management courses.***

### Accounting Students

BAIM 3200 Business Analytics  
MGMT 4110 Supply Chain Management  
ACCT 4540/5540 Accounting Information Systems

### Finance Students

MGMT 4120 Managing Business Processes  
MGMT4140 Project Management  
ACCT 4540/5540 Accounting Information Systems

### Marketing Students

BAIM 3200 Business Analytics  
MGMT 4140 Project Management  
MKTG 3700 Digital Marketing

### Management (HR Track) Students

BAIM 3200 Business Analytics  
MGMT 3100 Service Operations Management  
MGMT 4140 Project Management

### Management (Operations Track) Students

BAIM 3200 Business Analytics  
BAIM 4205 Business Data Management  
BAIM 4220 Business Technologies

### Management (Information Track) Students

MGMT 3100 Service Operations Management  
MGMT 4110 Supply Chain Management  
MGMT 4120 Managing Business Processes

### OPIM CERTIFICATE NEXT STEPS:

- 1) Register online at: [www.OPIM.Colorado.edu](http://www.OPIM.Colorado.edu)
- 2) Complete one of the three courses you are using for the certificate. (Refer to the course catalog and/or meet with the OPIM Certificate faculty advisor to learn more about each of the courses offered.)
- 3) Acquire an Internship where you apply material from at least one OPIM course and sign up for MGMT 4910 (OPIM Academic Internship). **An internship must be selected before you enroll in MGMT 4910 (OPIM Academic Internship).**
- 3) Complete the remaining OPIM courses. Three OPIM courses and the OPIM Academic Internship (MGMT 4910) are required.
- 4) During your final semester, contact the faculty advisor for the OPIM Certificate to ensure all elements of the OPIM certificate were met.

### OPIM CERTIFICATE FACULTY DIRECTOR:

Noah Zikmund  
[Noah.Zikmund@colorado.edu](mailto:Noah.Zikmund@colorado.edu)

### COURSE DESCRIPTIONS:

**ACCT 4540/5540 (3). Accounting Information Systems.**  
Considers the interaction of accountants with information systems and the role of accounting information systems in business processes. Focuses on the tools used by accountants and provides an understanding of accounting as an information system.

### **BAIM 3200 (3) Business Analytics.**

Teaches cutting-edge tools and approaches to the analysis of data, including "big data" for effective decision-making. The class creates data connoisseurs through hands-on exposure to exploratory and predictive analytics. Application areas covered include Web Marketing, the Internet of Things, Biometric Monitoring, as well as data integration and analysis for online marketing, human resources and operations. Formerly MGMT 3200

### **BAIM 3210 (3). Business Application Programming.**

The course objective is to introduce students to the world of programming and empower them with the ability to create and extend business applications. They will learn the core concepts of programming with VBA (Visual Basic for Applications) and use them to customize and extend applications like Excel. They will also learn a method to decompose a complex task into manageable pieces. Formerly MGMT 2010

### **BAIM 3220 (3) Introduction to Python Programming**

Python has emerged as the key programming language for data science and business analytics. Helps students understand the programming mindset though use of open source software and libraries and introduces students to object oriented programming. Formerly MGMT 3220.

**BAIM 4065 (3) Leadership in a Digital Age**

In the digital age, leaders have to orchestrate radical redesign of everything from their internal processes to their business model on an ongoing basis. This requires leaders to adopt new approaches to leadership and new behaviors. This course provides students with the skills required in identifying business opportunities, finding appropriate information related technologies and leading innovation efforts to success. Formerly MGMT 4065.

**BAIM 4090 (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. 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. Formerly MGMT 4090.

**BAIM -4205 (3) Business Data Management**

Emphasizes the fundamentals of modern database design in the context of large-scale applications. Covers analysis phase activities such as data modeling for requirements analysis. Covers the extended entity relationship model and the semantic data model in-depth. Covers design phase activities such as the normalization criteria of the relational model and transformation from conceptual to physical design. Introduces object oriented databases.

**BAIM 4220 (3). Business Technologies**

Covers ERP (enterprise resource planning) technologies which facilitate business processes within firms in three modules. The first will involve understanding the basics of technologies in organization. The second module will introduce OpenERP, an open-source ERP system for small-medium sized businesses. The final module is an introduction to SAP. Formerly MGMT 4220.

**BAIM 4230 (3). Design of Usable Business Systems**

Focuses on the development of user-friendly business systems, especially websites. Students will plan, design and develop websites, including mobile sites, that are user-friendly and visually appealing following current best practices for responsive and interactive design. Usability testing and website analytics techniques will be explored and practiced. Formerly MGMT 4230.

**BAIM 4250 (3) Information Security Management**

A broad introduction to the managerial issues of information security. Because security is multifaceted, the topics of the class range widely, including technical (e.g., cryptography), managerial (e.g., policy compliance), physical (e.g., door locks) and psychological (e.g., social engineering) issues. A key objective is to develop a security mindset, in which one learns to think like an attacker for ways to exploit a system. Formerly MGMT 4250.

**MGMT 3100 (3). Service Operations Management**

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.

**MGMT 4110 (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.

**MGMT 4120 (3). Managing Business Processes**

Covers the concepts and tools to design and manage business processes. Emphasizes modeling an 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.

**MGMT-4130 (3) Sustainable Operations**

Operational sustainability is not just an obligation, as set of strategies or a niche market to explore, but a critical shift in mindset of how businesses function. Sustainable operations examines business strategies in response to environmental and social challenges

**MGMT 4140 (3). Project Management**

Introduces multidisciplinary project management concepts, skills, and tools, including the relationship between project definition, organization, planning, scheduling, resource and risk management, control, costing and performance. Presents both qualitative and quantitative tools for better project management. Requisites: Requires prerequisite courses of BASE 2101, 2102, 2103 and 2104 (all minimum grade D-). Restricted to Business (BUSN) majors with 52-180 units completed.

**MGMT-4150 (3) International Operations Management**

Compares systems of production/operations management in the United States with those in Japan, Europe, and Asia. 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 sociocultural environments, government-business relationships, banking industries, operations strategies, and the potential for transferring industrial management practices and techniques between countries.

**MKTG 3700 (3) Digital Marketing**

Covers the what, why and how of major digital marketing approaches, including online listening and monitoring, search engine optimization, search ads, email marketing, and social media. Designed to launch students as digital marketing professionals and to provide experience with industry-relevant hands-on assignments and exercises.