

OPERATIONS MANAGEMENT (OM)

OM 521 Operations Management 3 Credit Hours

Operations Management is concerned with the efficient transformation of inputs that will effectively achieve customer satisfaction. In dynamic, competitive world, a company's effectiveness depends significantly on how well the firm's resources are managed. This course focuses on managerial tools for understanding the processes that are required for developing and delivering appropriate products and services. It prepares managers to use the results of analysis to constantly improve the firm's operational performance.

OM 571 Supply Chain Management 3 Credit Hours

This course aims to develop an understanding of key concepts of global supply chain management performance and their interrelationship with the firm's strategy. Special emphasis is given to tools and skills necessary to develop solutions for a variety of supply chain design problems. The overarching course objective is to develop and in-depth understanding of integrative managerial issues and challenges related to developing and implementing a firm's strategy.

Prerequisite(s): OM 521* or IMSE 580* or EMGT 520*

OM 631 Service Operations Management 3 Credit Hours

This course examines both traditional and new approaches for achieving operational competitiveness in service businesses. Major Service sectors such as health care, banking and financial services, transportation, restaurants, hotels, and resorts are examined. The course addresses both strategic and operational decision making. Among topics covered are: the service concept and operations strategy, design of effective service delivery systems, productivity and quality management, response time (queuing) analysis, capacity planning, yield management, and the impact of information technology.

Prerequisite(s): OM 521 or IMSE 580 or EMGT 520

OM 660 Supply Chain Analytics 3 Credit Hours

The purpose of this course is to equip students with decision support models and tools to recognize, analyze, and resolve supply chain problems. Compared to other supply chain management courses, it is designed for a more analytical oriented audience, including applications of advanced analytics as well as business intelligence and reporting aspects of supply chain management. This course focuses on identifying and reformulating problem statements and provides students with hands-on experience to solve those identified problems by applying analytical tools and models.

Prerequisite(s): OM 521 or IMSE 580 or EMGT 520

Restriction(s):

Can enroll if Class is Graduate

OM 661 Supply Chain Logis Mgmt 3 Credit Hours

The overarching course objective is to develop and in-depth understanding of integrative managerial issues and challenges related to developing and implementing a firm's logistics strategy. Attention is directed to the logistical mission confronted by varied types of business organization. Logistics is positioned as a value-added process that achieves time and place synchronization of demand stimulation and operations fulfillment. Emphasis will be place on challenges related to providing logistical support for procurement, manufacturing and market-distribution.

Prerequisite(s): OM 521 or IMSE 580 or EMGT 520

Restriction(s):

Can enroll if Class is Graduate

OM 662 Product Dvlpmnt & Tech Mgmt 3 Credit Hours

The objective of this course is to provide in-depth knowledge of the frameworks, policies, and issues that arise in the design and development of new products and the management of technology. In particular, the integration of new product development and innovative technology management within a supply chain forms the basis of knowledge offered in this course including the set of activities and processes associated with new product introduction and the development of new technologies. Topics include the product design and development phases, firm capabilities, product architectures, the make vs. buy decision, supplier involvement, industrial design, design-for-manufacturing, prototyping, and the management of technological change. Part of the course is project-based and covers modern tools and methods for product design and development.

Prerequisite(s): OM 521 or IMSE 580 or EMGT 520

Restriction(s):

Can enroll if Class is Graduate

OM 663 Lean & Six Sigma 3 Credit Hours

The purpose of this course is to provide a broad exposure to the principles and philosophies behind lean production and Six Sigma methodologies. Lean production and Six Sigma are widely adopted by a variety of firms and organizationans in different industries for their abilities to generate significant and lasting operational improvement. A management overview of both methodologies with an emphasis on best business practice is provided in addition to coverage of fundamental tools and concepts.

Prerequisite(s): DS 520 or IMSE 514

Restriction(s):

Can enroll if Level is Rackham or Graduate

OM 664 Strategic Sourcing 3 Credit Hours

This course presents the integrative role of procurement function within the business organization. Specific topics addressed from strategic, financial, and global perspectives include purchasing process, procurement and commodity strategy, insourcing/outsourcing, supplier evaluation and selection, supplier management and development, global sourcing, cost and price analysis, negotiation and contract management. Both theoretical and quantitative perspectives will be offered in covering these topics. Learning will be emphasized through review of articles published in academic and professional journals; discussion of case studies focusing on problems and issues involving sourcing; formulation of sourcing models using statistical and optimization software and application of various problem-solving algorithms; and working on a term project focusing on investigating a key sourcing problem.

Prerequisite(s): OM 521 or IMSE 580 or EMGT 520

Restriction(s):

Can enroll if Class is Graduate

OM 665 IT in SCM 3 Credit Hours

This course covers concepts in enterprise resource planning (ERP). The main focus of this course is to show how ERP systems integrate business processes across functional areas and support business management and performance analysis. This course will also examine how ERP systems evolved from early computer systems and manufacturing, and will evaluate the benefits and costs of implementing an ERP system. Example software, such as SAP, will be used extensively to illustrate how ERP systems work. Learning will be emphasized through review of articles published in academic and professional journals; discussion of case studies focusing on problems and issues involving enterprise resource planning; application of various problem-solving algorithms such as in forecasting and inventory management; and working on a term project focusing on investigating a key enterprise resource management problem.

Prerequisite(s): OM 521 or IMSE 580 or EMGT 520

Restriction(s):

Can enroll if Class is Graduate

OM 666 Sustainable Supply Chain Mgmt 3 Credit Hours

This course describes various issues and problems encountered in designing and maintaining a supply chain that deals with environmental concerns of product disposal, and re-manufacturing. Various types of sustainable supply chains, such as green supply chain, reversible supply chain, closed-loop supply chain etc., will be discussed along with tools and techniques to design and manage them.

Prerequisite(s): (OM 521 or IMSE 580 or EMGT 520) and MIS 525

Restriction(s):

Can enroll if Class is Graduate

* An asterisk denotes that a course may be taken concurrently.

Frequency of Offering

The following abbreviations are used to denote the frequency of offering: (F) fall term; (W) winter term; (S) summer term; (F, W) fall and winter terms; (YR) once a year; (AY) alternating years; (OC) offered occasionally