

## Supply Chain & Operations

### **Career Paths: Supply Chain & Operations**

Supply Chain and Operations combines the disciplines of operations, logistics, strategy and MIS. Rather than focusing on any single facet of delivering a product or service to the customer, SC&O covers the entire process, from “the suppliers of your suppliers to the customers of your customers.” A SC&O position may include any or all of the following, depending on the size and complexity of the organization:

- Choosing and developing suppliers.
- Designing and implementing systems and processes for improving the customer interface, reducing transaction costs, reducing inventories, and improving service levels.
- Sourcing materials, components, technologies, and services.
- Monitoring and managing inventory at all steps of the supply chain.
- Managing logistics, warehouses, distribution inventories, and service parts.
- Managing internal operations or service functions.
- Managing quality and six sigma projects throughout the supply chain.
- Strategically analyzing the supply chain to increase revenues, improve service, reduce cost, and ultimately improve profit.

### **Skills Desired:**

Candidates should be critical thinkers who can analyze, manage, and improve business processes using strategic thinking and analytical skills. The ability to understand international management issues is also important because Supply Chain Operations often cross national boundaries in addition to functional ones. Most employers seek students that have strong financial analysis skills, leadership skills, information systems knowledge and the ability to work in teams. Strong oral and written communication skills are also desirable.

The cross-disciplinary nature of Supply Chain and Operations suggests supporting coursework from a large number of academic areas.

- Operations Management for understanding manufacturing, service processes, inventory management, quality management, and supply chain technology management, along with associated process improvement techniques.
- Logistics for the management of delivery and fulfillment systems.
- Marketing for the ability to understand market behavior and distribution requirements.
- Strategy for better understanding how supply chains compete, discerning effective alliances, and helping prioritize SCM opportunities.
- MIS for an understanding of systems design and implementation.

The skills listed above are contained in the highly recommended courses listed below consisting of 16 credits. In addition students should select electives from the suggested list of courses or other courses that complement their particular interests and experience.

In addition to the highly recommended courses, one possibility is to select one functional area such as marketing, operations, information systems, finance or strategy and organization for additional course

work. This would build the strength of the student's portfolio in one additional area to complement the supply chain and operations courses already taken.

Another possibility is to select courses from several of the areas suggested in order to build a broader base of expertise across the board. In this case the student would pick and choose courses from the suggested list to complement his or her experience and build more skills in several functional areas.

### **Enterprise Recommendation:**

The Carlson Consulting Enterprise has a strong Supply Chain and Operations orientation and provides a good opportunity for students to gain practical experience in internal or external consulting. Students find this enterprise useful whether they choose a position in a consulting company or a position in business.

Although not an Enterprise, the New Product Design and Business Development class (ENTR 6041 or OMS 6061/6062) shares some of the features of the Enterprises, including actual project experience for an outside client. Student teams are required to develop a working physical prototype of a product and a comprehensive business plan for its commercialization as the final deliverable for their client firm. Students may not take both this class and an Enterprise, due to the significant time commitments of each.

### **Job Titles:**

There is a variety of entry level and higher level positions available to those who choose a supply chain and operations portfolio. These include.

Supply Chain Consultant	Supply Chain Analyst
Buyer/Planner	Supply Manager
Procurement Manager	Inventory Manager
Purchasing Manager	Logistics Planner
Materials Manager	Plant Manager
Six Sigma Blackbelt	Operations Manager
Quality Manager	Operations Analyst
Service Manager	Business Analyst

### **Job hunting:**

Companies from a variety of industries come to the Carlson School for graduates with expertise in Supply Chain and Operations: Consulting, high and low tech manufacturing, retail, service and transportation companies make up the majority of recruiters. Some are looking for students with information systems knowledge in addition to Supply Chain. Others seek a strong Finance, Marketing, Operations or Strategic Management combination together with Supply Chain knowledge.

### **Resources:**

#### **Web Resources**

**Vault.com – Operations and IT Consulting (within Consulting Home).** Offers company and industry overviews, articles. [vault.com/hubs/502/channelhome\\_502.jsp?ch\\_id=341](http://vault.com/hubs/502/channelhome_502.jsp?ch_id=341)

**Achieving Supply Chain Excellence Through Technology (ASCET):** This public forum site sponsored by Accenture offers a comprehensive collection of industry papers on different aspects of supply chain management. <http://www.ascet.com/ascet>

#### **Print Resources**

**Career Information Guides**  
Available in the GBCC

**Supply Chain Management Review:** A bi-monthly publication covering supply chain management issues affecting senior managers. [www.manufacturing.net/scm](http://www.manufacturing.net/scm)

## **Carlson Affiliations**

### **Carlson Supply Chain & Operations Club** (student organization)

The Supply Chain & Operations Club aims to give MBA students a broader understanding of the opportunities, career paths, trends, and current burning issues in supply chain and operations management. It does this through speakers, plant tours, discussion panels, faculty interactions, and other activities. The club also leverages these programs to assist students with job and internship searches.

**Carlson Consulting Club** (student organization): Educational events, networking engagements, and case interviewing practice.

### **Carlson MBA Technology in Business Club**

The Carlson MBA Technology in Business Club (CTIB) focuses on the needs of students interested in learning about or being a part of some aspect of the Information Technology industry. With students representing all concentrations, the club encourages a cross-functional experience. The club has had the privilege of working with the faculty and administration on developing and improving the Management Information Systems and eBusiness Concentrations at Carlson, and takes pride in being active members of the Carlson School community.

**Supply Chain Management and Operations Case Competitions:** Each year the Carlson School sponsors teams of students to take part in two national case competitions: (1) The Carnegie Mellon Operations Case Competition, held at CMU in November, and (2) The International Logistics Case Competition, held in February in Chicago.

**Supply Chain Initiative Advisory Board:** This board of industry overseers meets once a quarter to advise faculty and support staff about industry needs and trends in the Supply Chain and Operations area and offer feedback on the programs being offered by the Carlson School.

## **Professional Affiliations**

### **Council of Logistics Management**

The Council of Logistics Management – Twin Cities Roundtable provides value to logistics professionals through professional development, networking, and disseminating logistics knowledge. The local chapter offers great opportunities for students to join and network at a reduced membership rate. Visit [www.CLMmn.us](http://www.CLMmn.us) for details and event listings.

### **Institute for Supply Management (formerly, National Association of Purchasing Management)**

NAPM-Twin Cities provides education and networking opportunities for purchasing professionals, to set ethical standards and to advance the profession of purchasing management. For more information visit [www.napm-twincities.org](http://www.napm-twincities.org).

### **American Production and Inventory Control Society**

APICS –Twin Cities provides monthly professional meetings in the Twin Cities with speakers and networking opportunities. A reduced membership rate is available for students. Visit [www.apicstc.org](http://www.apicstc.org) for more information.

### **American Society for Quality**

ASQ –Twin Cities offers opportunities for students to meet with professionals in the quality field on topics of current interest. Monthly dinner meetings are available for students at a reduced rate. Visit [www.mnasq.org](http://www.mnasq.org) for details.

## **Professional Portfolio: Supply Chain & Operations**

### **Course Information**

#### **Highly Recommended Courses**

MKTG 6060 Distribution and Supply Chain Management (4 cr)

OMS 6056 Managing Supply Chain Operations (4 cr)

OMS 6059 Quality Management and Six Sigma (4 cr.)

MKTG/OMS 6065 Strategic Supply Chain Management (2 cr)

Choose one of the following:

OMS 6072 Managing Technologies in the Supply Chain (4 cr)

IDSc 6423 Enterprise Systems Technology (2 cr)

#### **Suggested Courses**

The choice of additional coursework will depend on the individual's specific area of interest. All of the courses listed below have relevance for Supply Chain and Operations

##### **Operations**

OMS 6041 Project Management (2 cr)

OMS 6051 Service Management (2 cr)

OMS 6061/6062 New Product Design and Business Development (6 cr)

OMS 6081 Operations Strategy (2 cr)

OMS 6082 International Operations Management (2 cr)

##### **MIS**

IDSc 6442 Electronic Auctions and Exchanges (formerly: Technologies for B2B E-Commerce) (2 cr)

IDSc 6401 Decision Technologies for E-Business (2 cr)

##### **Marketing**

MKTG 6020 Advanced Logistics and Supply Chain Management (2 cr)

MKTG 6075 Pricing Strategy (4 cr)

MKTG 6072 International Marketing (2 cr)

##### **Strategy and Organization**

MGMT 6031 Industry Analysis and Competitive Strategy (4 cr)

MGMT 6032 Strategic Alliances (2 cr)

##### **Finance**

FINA 6242 Advanced Corporate Finance Analysis and Decisions (4 cr)

**Remember: Recruiters want more than functional skills. To differentiate yourself, consult the document “Building Your Portfolio.” There you will find suggestions for additional classes that can add international exposure, provide a strategic framework and build entrepreneurial skills, among others.**