

## **Academic & Career Advising Guide**

# Master of Science in Supply Chain Management

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## **INTRODUCTION TO THE GUIDE**

The **Katz Academic & Career Advising Guide** is a program roadmap that enables students to customize the graduate school experience based upon their individual strengths and professional goals.

You can find important information about the Master of Science in Supply Chain Management (MS-SCM) curriculum, as well as suggestions for elective courses, co-curricular activities, professional organizations and certifications here. Used together with Gallup's StrengthsFinder 2.0 and regular appointments with your career and academic advisors, you will be empowered to individualize your experience and enhance your competitiveness in order to achieve your academic and career goals.

## **ACADEMIC & CAREER ADVISING**

At Katz, we have a multi-faceted advising approach that is designed to provide every student with the best opportunity to achieve success. The faculty director, academic advisor, and career advisor take the lead on different aspects of your experience at Katz. They all work together to provide integrated advice to students about the program.

- The faculty director manages the curriculum and academic standards for the MS-SCM program.
- The **academic advisor** provides day-to-day advising and support to students on many aspects of the program, including course selection, registration, graduation requirements, and general questions and concerns.
- The **career advisor** understands the students' career goals and coaches the student to construct a plan specifically tailored to their goals.

You may have wondered why you heard from your career and academic advisor before you even started the program. We are acutely aware that students who have been most successful in the past were singularly focused on post-graduation goals before they arrived on campus. With this knowledge in hand, we begin the process of focusing on your ultimate academic and career goals as early as possible.

As career goals come into focus, career advisors can then discuss the goals of each student with their academic advising counterparts. Career advisors and academic advisors work together to understand the ultimate goal of each student along with the skill sets the students will require to meet their goals. Then, they work with each student to construct curricular and co-curricular courses and activities specifically tailored to the individual student.

Faculty members frequently interact with both career and academic advisors. Career advisors provide recruiter feedback to faculty in regard to specific topics that give students a competitive advantage. Academic advisors then work with the faculty to determine which courses provide the student with specific knowledge that is most important to recruiters for the success of that individual student.

This process continues throughout the Katz experience and is designed to be completely transparent to the student while taking advantage of the 3 pillars of the Career Management Center:

- **Career Coaching:** The CMC directs students to relevant resources based on their strengths and career interests, empowering them to achieve their professional objectives.
- **Career Professional Development :** Ensuring that students develop business sophistication, self-awareness, and appropriate communication skills that are critical in today's job market.
- **Employer Engagement:** The CMC develops and maintains relationships with corporate partners and alumni, to connect students to networking and job opportunities.

## **CURRICULUM PLAN**

In order to make the most of your Katz experience, it is critical that you work closely with your academic advisor, career advisor, and faculty director to assist you with appropriate course selection and sequencing that aligns with your professional aspirations.

A student must fulfill the following requirements in order to receive the MS SCM degree:

- 1) A minimum of 30 credits of approved graduate-level coursework
- 2) The appropriate distribution of required core courses and elective courses
  - a. 16.5 credits of core courses are required
  - b. 13.5 credits of elective courses are required
- 3) Complete EBL requirement: 3-credit project focused on supply chain management OR complete an Internship (*with approval from faculty director*)
- 4) A minimum cumulative quality point average (QPA) of 3.0 (B)

Information on course offerings, including course abstracts and schedules, can be found on <u>StudentNet</u> under the 'Class Schedule' tab.

#### **Core courses**

Core courses are required of all MS-SCM students and are intended to provide students with the foundational knowledge in order to be successful. Although some courses are offered in both the Fall and Spring semesters, students should take courses in the semester listed below:

Required Core Courses (Total 16.5 credits)	Credits	Semester
BQOM 2401 Statistical Analysis	3.0	Fall
BQOM 2421 Decision Technologies in Manufacturing & Operations	1.5	Fall
BQOM 2523 Process Engineering	1.5	Fall
BQOM 2533 Global Supply Chain Management	3.0	Spring
BQOM 2534 Strategic Procurement and Sourcing Management	1.5	Spring
BQOM 2532 Negotiations, Teamwork & Change	1.5	Fall, Spring
BMIS 2074 Strategic Information Technology in Global Supply Chains	1.5	Fall
EBL Requirement: BIND 2024 Consulting Field Project OR BIND 27** Global Research Practicum; OR Internship (faculty director approval)	3.0	Fall, Spring

## **Elective courses**

Elective courses provide depth of expertise in areas of interest to the student. The elective courses have been categorized by **focus area** for the convenience of students who may wish to specialize in a particular area; however students do NOT need to limit themselves to courses from only one focus area. The MS-SCM program requires the completion of at least 13.5 credits of elective courses from the following list:

Elective Courses (Minimum 13.5 credits)	Credits	Semester
Operations		
BQOM 2139 Six Sigma Theory and Practice (Green Belt	3.0	Fall, Spring
certification course)		
BQOM 2511 Revenue Management & Pricing Analytics	1.5	Spring
BQOM 2512 Advanced Decision Technologies	1.5	Spring
(pre-requisite BQOM 2421)		
BQOM 2524 Production Management Fundamentals & Analytics	1.5	Fall, Spring
BQOM 2537 Forecasting	1.5	Spring
BQOM 2546 Project Management Fundamentals & Analysis	1.5	Fall, Spring
BQOM 2578 Data Mining (pre-requisite BQOM 2401)	3.0	Fall
Information Technology		
BQOM/BMIS 2501 Enterprise Systems & Integration of Business	3.0	Spring
Processes (SAP TERP10 certification course)		- ·
BMIS 2538 Strategic Cybersecurity in Business	1.5	Spring
BQOM/BMIS 2542 Introduction to Data Science: Programming	3.0	Fall
Essentials (languages: Python, R)		
Marketing	4 5	
BMKT 2409 Marketing Management	1.5	Fall
BMKT 2526 Product Development & Management	3.0	Spring
(pre-requisite BMKT 2409)		- "
BMKT 2533 Business to Business Marketing	1.5	Fall
BMKT 2544 Shopper Marketing (Retail Analytics; SPSS)	3.0	Fall
Finance		
Finance	2.0	E - U
BACC 2401 Financial Accounting	3.0	Fall
BACC 2528 Managerial Accounting (pre-requisite BACC 2401)	1.5	Spring
BFIN 2409 Financial Management 1	1.5	Fall, Spring
Stratemy (Organizational Bahavier		
Strategy / Organizational Behavior BECN 2509 Global Macroeconomics 1	1 Г	Foll Corina
	1.5	Fall, Spring
BSEO 2511 Management of Strategic Alliances 1	1.5	Spring
BSEO 2525 Competitive Intelligence	1.5	Spring
BOAH 2409 Organizational Behavior: Leadership & Groups	1.5	Fall
BOAH 2456 Managing Offshore Outsourcing	1.5	Varies

## **Co-Curricular Opportunities**

A variety of opportunities to learn, improve, and practice professional business skills are available to Katz students. Specialized professional development workshops are designed to enhance those skills taught in the classroom and that are highly valued by employers.

## Pitt Business Center for Supply Chain Management

## **Enterprise Systems**

- BMIS 2501 Enterprise Systems & Integration of Business Process (3 credits) offers students the opportunity to take the **SAP TERP 10 Certification** exam on the last day of class. Talk with your academic or career advisor for further details.
- <u>SAP student website</u>

## **Operations Management**

- A variety of professional development programs and certifications are available from <u>APICS</u>, the professional association for supply chain management.
  - o APICS Certified in Production and Inventory Management (CPIM)
  - o APICS Certified Supply Chain Professional (CSCP)
  - o APICS Certified in Logistics, Transportation and Distribution (CLTD)

#### **Process Improvement**

• Students earn their **Six Sigma Green Belt** certification while taking the BQOM Six Sigma Theory & Practice (3 credits) course. Talk with your academic or career advisor for further details.

#### **Project Management**

- The <u>Project Management Institute (PMI)</u> offers a discounted student membership for those enrolled full-time in a degree-granting program, reduced from regular membership of \$129.00.
- Be sure to explore the <u>PMI Pittsburgh</u> chapter which hosts a wide variety of professional development and networking events throughout the year.
- If you're a veteran or serve in the U.S. Military, your PMI certification exam including the PMI-PBA<sup>®</sup> - is covered by the GI Bill for U.S. Military Service Members and Veterans.
- Talk with your academic or career advisor about the CAPM/PMP Exam Prep Workshop (3 days) usually offered during Spring Professional Development Days, as well as other options from <u>PMCentersUSA</u> available through Katz Executive Education.

## **Interview Skills**

- Interviews typically include a behavioral interview component. The interviewer is interested in discovering how you have acted in specific situations in the past. We recommend that you reflect (think and write) on your academic and work experiences so that you can quickly remember and communicate these brief stories during an interview. See the Career Connection resource library for "Complete List of Behavioral Interview Questions".
- Some interviews have a **case interview** component. Because of this, we recommend that you practice and master your case interviewing skills.
  - <u>Case in Point</u> Marc Cosentino, President, has over 23 years of case interview prep experience. His book is entitled, *"Case in Point: Complete Case Interviewing Preparation"* at is approximately \$25 plus shipping and handling.
  - A helpful and quick review guide is the <u>Vault Guides on Case Interviewing and Case</u> <u>Interviewing Practice</u> – FREE through Vault link in Career Connection.
- Take advantage of opportunities to practice your interview skills. Make an appointment with an **Executive-in-Residence (EIR)** and be sure to participate in "**Mock Interview**" days.

## **Additional Professional Resources**

Journals/Publications	Books
Journal of Operations	The Goal: A Process of Ongoing Improvement by Eliyahu M.
Management	Goldratt
IndustryWeek: Advancing the	Lean Six Sigma Pocket Toolbook by Michael L. George and
Business of Manufacturing	John Maxey
International Journal of	The Machine That Changed the World by James P. Womack,
Operations & Production	Daniel T. Jones, and Daniel Roos
Management	
APICS Magazine	Manager's Guide to Operations Management by John
	Kamauff
APICS Dictionary and <i>free</i> APICS	Reengineering the Corporation: A Manifesto for Business
Learn It app	Revolution by Michael Hammer and James Champy
Gartner (industry research and	Competing Against Time: How Time-Based Competition is
resources created by Gartner)	<b>Reshaping Global Markets</b> by George Stalk, Jr. and Thomas
	Hout
	Execution: The Discipline of Getting Things Done by Larry
	Bossidy, Ram Charan, and Charles Burck
	The Six Sigma Way: How to Maximize the Impact of your
	Change and Improvement Efforts by Peter Pande, Robert
	Neuman, and Roland Cavanaugh

## **CAREER PLANNING**

Typically the amount of prior work experience plays an integral role in the level with which you are hired within an organization. Whether you are a career starter, career switcher or career enhancer, Katz research shows that those with a supply chain management degree are hired into the following functional areas:

Supply Chain Management / Logistics Management Project Management Performance Improvement/Strategy Operations Consulting

Please access Vault through <u>Career Connection</u> to learn more about various careers in supply chain management and data analytics. Some specific job roles to consider include:

- Supply Chain Analyst
- Sourcing Specialist
- Logistics Analyst
- Planning Specialist

## Supply Chain Management / Logistics Management

Supply Chain Management (SCM) encompasses not only the design and planning of supply chain activities, but also the execution, monitoring, and control that help companies build a competitive infrastructure and create net value. There are five core processes that comprise SCM; plan, source, make, deliver, and return. The five core SCM processes are often evaluated against five metrics: reliability, responsiveness, agility, cost, and asset management.

Integral to SCM is Logistics Management (LM). LM is concerned with shipping, warehousing, and inventory activities. The purpose of LM is to obtain efficiency of operations through the integration of all material acquisition, movement, and storage activities. When transportation and inventory cost are substantial, an emphasis on LM may be appropriate. Many firms opt for outsourcing logistics functions, as third-party specialists can often bring expertise not available in-house. SCM/LM managers collaborate with both internal and external functions.

#### **Suggested Elective Courses**

Courses	Credits	Semester
BACC 2401 Financial Accounting	3.0	Fall
BACC 2528 Managerial Accounting	1.5	Spring
BIND 2024 Consulting Field Project	3.0	Fall/Spring
BQOM 2524 Production Management and Process Improvement	1.5	Fall
BQOM 2537 Forecasting	1.5	Fall/Spring
BQOM 2546 Project Management Fundamentals and Analytics	1.5	Spring
BSEO 2511 Management of Strategic Alliance	1.5	Spring

#### **Suggested Co-Curricular Activities**

Clubs: Operations, Business Technology

Case Competitions: Katz Invitational Case Competition, Crane Case Competition (internal), APICS Case Competition, Daniel's Race and Case (ethics), MIT OpsSimCom; see <u>Experience Based Learning</u> on StudentNet for more information about case competitions

#### Pitt Business Center for Supply Chain Management

#### Job Functions within Track

**Demand Planner:** This position is responsible for all forecasting activities associated with customers and products. The Demand Planner creates and maintains forecast models for their customers, incorporating business intelligence and forecast information gathered from sales, marketing, finance, retailer replenishment analysts, and other sources (i.e.: Nielsen or other syndicated consumer data). The Demand Planner is the integration point into the sales and commercial organization.

**Procurement Representative/Purchasing Agent/Subcontract Manager:** This position is responsible for buying goods and/or services required to produce the product being sold by the organization. It is the responsibility of the buyer to search for the best price and the best quality by researching and developing relationships with suppliers. Negotiating is often present in these business transactions, and relationships and partnerships are often formed through multiple transactions between the buyer and seller. A buyer will receive the purchasing requirements from the planning department, and will issue a Purchase Order (PO) to the chosen supplier. The buyer is often responsible for ensuring timely delivery of purchased goods, and working with the supplier to expedite delayed orders. Finally, the buyer may be responsible for working to

resolve issues related to delayed payments, and helping to preserve relationships with repeat suppliers. A subcontract manager is a more senior-level buyer, managing more complex contracts with companies supplying a more complex good or service. These contracts are higher-value and have longer delivery times, so subcontract managers are responsible for managing milestones and some commodity issues.

**Manufacturing or Warehouse Manager:** These types of positions are more hands-on with the product being manufactured. A manufacturing manager works on the manufacturing floor or the assembly line to ensure production runs smoothly. This position is often troubleshooting issues that can stem from multiple departments. A warehouse manager is responsible for keeping a stocked and organized warehouse in order to support the production schedule. The warehouse manager often works closely with receiving, purchasing, and the manufacturing floor to ensure that parts that are scheduled to be in the warehouse or leaving the warehouse are accurately reflected in the company's tracking system.

*Logistics Specialist:* This position is responsible for ensuring that goods get to the scheduled destination on time and with efficiency. They are responsible for tracking goods, communicating with various stakeholders, and troubleshooting issues that may arise. Warehousing also falls under Logistics, so while there may be individuals focusing on transportation and others focusing on warehousing, they are often working very closely.

**Strategic Sourcing Analyst:** This position is responsible for understanding how various global, national, and local constraints may affect the commodities or goods that are being bought or "sourced" by the company to produce their product. This is a research-heavy position that is focused on anticipating upstream issues in order to reduce downstream risk. Strategic sourcing analysts will often work closely with engineering to provide input into which materials or parts are better for the design based on anticipated issues that may lead to shortages.

#### Key Skills Needed

Problem solver, leadership, analytical, organized, attentive to detail, collaborative, strong listening skills, SAP system experience, creating flow charts, experience in project development, creating and tracking metrics, identifying risk, resolving conflict

## **Project Management**

Project managers plan, organize, and manage resources to bring about the successful completion of specific project goals and objectives. This highly visible role drives and monitors progress and reports deviations when necessary. Collaboration with other members of the organization, such as sales, marketing, finance, and customer support teams is paramount to achieve these sales and service objectives. The primary challenge of project management is to achieve all of the project goals and objectives while honoring the project constraints (i.e. scope, time, and budget). A successful Project Manager must simultaneously manage the four basic elements of a project: resources, time, money, and most importantly, scope. All these elements are interrelated and each must be managed effectively in order for the project to be a success and add value to the organization.

## Suggested Elective Courses

Courses	Credits	Term likely to be offered
BQOM 2546 Project Management Fundamentals and Analytics	1.5	Fall, Spring
BQOM 2537 Forecasting	1.5	Spring
BIND 2024 Consulting Field Project	3.0	Fall, Spring
BACC 2401 Financial Accounting	3.0	Fall
BACC 2528 Managerial Accounting (prerequisite: BACC 2401)	1.5	Spring
BOAH 2511 Management of Strategic Alliances 1	1.5	Spring

## **Suggested Co-Curricular Activities**

Clubs: Operations, Business Technology

Case Competitions: Katz Invitational Case Competition, Crane Case Competition (internal), APICS Case Competition, Daniel's Race and Case (ethics), MIT OpsSimCom; see <u>Experience Based Learning</u> on StudentNet for more information about case competitions

## Pitt Business Center for Supply Chain Management

Job Functions Within Track

- Project Manager/Project Engineer
- Implementation Manager
- Product Manager
- The practice of project management spans across all aspects of business. Everyone at some point in their education or professional career has managed some kind of project with a scope, deliverable, and a deadline. Therefore, there can be project management within any job title, so do not limit your options to just the titles above.

## **Performance Improvement/Strategy Operations Consulting**

Performance improvement or strategy and operations consultants typically work with client project teams and are responsible for supply chain/operations analysis, problem solving, financial modeling, general business analysis, research, and report or presentation generation for the client or project team. Operations consultants also assist various types of businesses to assess the current status of internal procedures and strategies, and enhance the overall operation of the company. While operations consulting is often thought to focus on manufacturing plants or production facilities, the scope of operations consulting is actually broader. Even businesses that are service-based, rather than productbased, can benefit from operations consulting. An operations consultant will normally initiate the evaluation process by examining the workflow structure of the business. This begins with the structure and division of labor among the management of the company, and then moves on to the various divisions and departments, and how they relate to one another in order to ultimately supply customers with goods or services. The idea is to understand how each component of the business currently impacts processes, directly or indirectly. It's important to note, performance improvement/strategy operations consultants may work for a singular organization as internal management consultants who support an organization's various business units, or for a third-party consulting organization.

Courses	Credits	Term likely to be offered
BQOM 2546 Project Management Fundamentals and Analytics	1.5	Fall/Spring
BQOM 2524 Production Management and Process Improvement	1.5	Fall/Spring
BQOM 2537 Forecasting	1.5	Fall/Spring
BQOM 2578 Data Mining	3.0	Fall
BIND 2024 Consulting Field Project	3.0	Fall/Spring

#### **Suggested Elective Courses**

#### **Suggested Co-Curricular Activities**

Pitt Business Center for Supply Chain Management

Clubs: Operations, Consulting

Case Competitions: Katz Invitational Case Competition, Crane Case Competition (internal), APICS Case Competition, Daniel's Race and Case (ethics), MIT OpsSimCom; see <u>Experience Based Learning</u> on StudentNet for more information about case competitions

Job Functions Within Track

- Process Improvement / Continuous Improvement / Operational Excellence Specialist or Process Engineer these terms are all used interchangeably, but each company tends to use one or two to describe their Process Improvement department.
- Business Systems Analyst