



Syllabus: 3301, Spring 2018

Introduction to Supply Chain Management

About the Instructor



Contact information:

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Virtual Office Hours: Mon 2 to 3pm

In-person Office Hours: Wed 2 to 3pm

Or Email (My response to emails during weekends may be slower.)

Welcome

Welcome to our online Introduction to Supply Chain Management! Supply Chain is an exciting and growing discipline serving as the key business function in various industries of manufacturing, agriculture, service, and health care among others. Efficient, responsive, cost-effective and reliable supply chain is crucial for a firm's success in today's volatile economy and competitive market environment. Through this class, you will learn a comprehensive range of topics and concepts in supply chains, and enjoy a variety of industrial examples and cases, with a special focus in Agribusiness, to understand the important role and value of supply chains. This class lays foundations of a supply chain professional who will be suitable for the following career/jobs:

- Supply Chain
- Transportation and Logistics
- Purchasing and Procurement
- Operations

Course Overview

This course provides an understanding of fundamental concepts of supply chain management. All functional areas of supply chain management are explored in an integrated view of procurement, manufacturing and operations management, transportation and logistics, inventory and warehousing, demand planning, scheduling, network design, collaboration and performance measurement. Topics also cover supply chain financial metrics, strategy and risk management for demand driven value networks.



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Instructor Bio

I am an Associate Professor of Logistics and Operations Management, and a Research Fellow of Center for Transportation Studies, at University of Missouri – St. Louis (UMSL). I have my Ph.D. in Operations Management from the University of Mississippi (2005), Master of Arts in Economics also from University of Mississippi (2002), and Bachelor of Engineering in Foreign Trade in Industry with minor in Aeronautical Engineering from Beihang University, China (2000).

My research interests include optimization modeling, simulation, and algorithm design in the application domains of scheduling, workforce optimization, and supply chain configuration. I worked as a Statistical Analyst at the Naval Personnel Research, Study and Technology (NPRST) in Millington, TN in 2004, and was a Visiting Scholar at the Hewlett-Packard Laboratory (HPL) in Palo Alto, CA in 2005. My past research projects include optimizing agri-food supply chain configuration, and perishable food pickup and delivery, developing capacity and capability planning (CCP) models for strategic/tactical resource planning (RP) and project portfolio optimization (PPO) at HP; manpower optimization and scheduling of DDX battleship for the U.S. Navy; approximate dynamic programming (ADP) algorithms for solving high-dimensional stochastic resource-constrained project scheduling and its applications in unmanned aerial vehicle (UAV) scheduling for the U.S. Army; dynamic models and solution approaches for resource distribution and scheduling of large-scale construction projects at J.E. Dunn.

I have published in scholarly journals including *European Journal of Operational Research*, *Computers and OR, Interfaces*, *Omega*, *Military Operations Research*, *Journal of Scheduling*, *Annals of Operations Research*, *IEEE Engineering Management among others*. I was a recipient of the Young Investigator Award from the US Army Research Office (ARO) in 2010. With one U.S. patent pending and several invention disclosures, I was named 2015 UMSL Inventor of the Year, and won the 2015 Douglas Durand Award for Research Excellence of College of Business Administration.

Teaching Philosophy

- *Emphasize the practical relevance and value of a topic as importantly as the content of the topic*
- *Develop and cultivate students' interests in SCM and critical thinking, to bridge the gap between classroom learning and real world application*
- *Leverage my research interests and expertise to introduce the most recent advancement, and meet the evolving needs and challenges of today's supply chains*

About this course:

Required texts: *Principles of Supply Chain Management: A Balanced Approach*, Fifth Edition, Cengage, 2017.

Prerequisites: A minimum campus GPA of 2.0.

This course provides an understanding of fundamental concepts of supply chain management. All functional areas of supply chain management are explored in an integrated view of procurement, manufacturing and operations management, transportation and logistics, inventory and warehousing, demand planning, scheduling, network design, collaboration and performance measurement.

Time Requirements:



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If this course were offered on campus, you'd be in class 2.5 hours/week plus travel time. The online version is no different in terms of expectations for your involvement. This is an active online course that requires 3 hours of your time each week **in addition to** the time it takes you to read the required materials, watch the videos, and complete the assignments. That means that you need to plan to spend a minimum of **6 hours every week** (up to 9-10 hours a week) on activities related to this course. If you are worried about your preparedness, consider taking the [Online Readiness Survey](#) to help decide if an online course is right for you.

Technology Requirements:

As a student in an online course, you are expected to have reliable internet access almost every day. If you have computing problems, it is your responsibility to address these or to use campus computing labs. Problems with your computer or other technology issues are not an excuse for delays in meeting expectations and missed deadlines for the course. If you have a problem, [get help in solving it immediately](#). At a minimum, you will need the following software/hardware to participate in this course:

1. Computer with an updated operating system (e.g. Windows, Mac, Linux)
2. Updated Internet browsers. The [Google Chrome](#) is the recommended browser for this course. Both Internet Explorer and Firefox have known issues with Canvas.
3. Ability to navigate the [Canvas](#) (learning system)
4. Frequent access to your personal campus email and course website
5. Minimum Processor Speed of 1 GHz or higher recommended.
6. DSL or Cable Internet connection or a connection speed no less than [6 Mbps](#).
7. Media player such as [VLC Media Player](#).
8. [Adobe Flash player \(free\)](#)
9. [Adobe Reader or alternative PDF reader \(free\)](#)
10. [Oracle Java plugin \(free\)](#)
11. [Microsoft Silverlight plugin \(free\)](#)
12. A webcam and/or microphone is **highly recommended**.

Goals of the Course:

- *Understand the important role of supply chains in today's business and economy*
- *Understand a wide scope of functions and concepts in supply chains*
- *Understand and apply conceptual decision-support to supply chain related decision problems*
- *Understand the unique characteristics and issues of agribusiness supply chains*

How to Succeed in This Course

- *Be a motivated learner*
- *Be a proactive learner*
- *Be a responsible learner*

Assessment/Grading

Grade Composition:

- Class Participation including Video Demos (20%)
- Quiz (15%)



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- Case Studies (20%)
- Exam-1 (15%)
- Exam-2 (15%)
- Exam-3 (15%)

Grading Scale:

90 – 100: A

80 – 89: B

70 – 79: C

60 – 69: D

Below 60: F

Tentative Course Schedule

Module #/Name	Dates	Lectures	Readings and Demos	Assignments
Module-1 SC Overview	Jan 15 – Jan 28	Chapter 1 Introduction to SCM Supplement-1: Introduction to Agribusiness Supply Chains		Quiz-1 Case Study - 1
Module-2 Supply Issues in SCM	Jan 29 – Feb 11	Chapter 2 Purchasing Management Chapter 3 Supplier Relationship Management	<u>Video Demo – 1:</u> Strategic SC Network Design	Quiz-2
Exam-1	Feb 12 – Feb 18	Covers Chapters 1, 2, 3 and Supplement – 1		
Module-3 Operations Issues in SCM	Feb 19 – March 4	Chapter 6 Resource Planning Chapter 7 Inventory Management		Quiz-3 Case Study - 2
Module-3 (Cont.)	March 5 – March 18	Chapter 8 Process Management Supplement – 2: Special Topics in Agribusiness Supply Chains	<u>Video Demo – 2:</u> Vehicle Routing Optimization	Quiz-4 Case Study - 3
Exam-2	March 19 – March 25	Covers Chapters 6, 7, 8 and Supplement-2		
Module-4 Distribution Issues in SCM	March 26 – April 8	Spring Break Chapter 9 Domestic and Global Logistics	<u>Video Demo – 3:</u> Data Visualization in TMS	Case Study - 4
Module-4 (Cont.)	April 9 – April 22	Chapter 10 Customer Relationship Management Chapter 11 Global Location Decisions	<u>Video Demo – 4:</u> Rate and Lane Optimization in TMS	Quiz-5



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Module-5 Integration Issues in SCM	April 23 – May 6	Chapter 13 Supply Chain Integration Chapter 14 Performance Metrics in Supply Chains	<u>Video Demo – 5:</u> Information Flow and Sharing in TMS	Quiz-6
Exam-3	May 7 – May 11	Covers Chapters 9, 10, 11, 13 & 14		

Course Policies

Attendance Policies

- *Present* in class for online courses is determined by participation in an “academically related activity,” i.e. submission of an assignment, assessment or discussion forum posting. The last day of attendance is the last day a student is academically participating in the online course.
- Documentation that a student has logged into an online class is not sufficient by itself to demonstrate academic attendance.

Academic Integrity/Plagiarism

- You are responsible for being attentive to and observant of University policies about academic honesty as stated in the University’s Campus Policies and Procedures in the [Triton Manual](#) (p. 30)
- Academic dishonesty is a serious offense that may lead to probation, suspension, or [dismissal from the University](#). One form of academic dishonesty is plagiarism – the use of an author's ideas, statements, or approaches without crediting the source. Academic dishonesty also includes such acts as cheating by copying information from another student. **Plagiarism and cheating are not acceptable.**
- Academic dishonesty will be reported to the Office of Academic Affairs for possible action. The instructor will make an academic judgment about the student’s grade on that work and in that course. The campus process regarding academic dishonesty is [described in the “Policies” section of the Academic Affairs website](#)
- Plagiarism is the use of another person’s words or ideas without crediting that person.
 - Plagiarism and cheating will not be tolerated and may lead to failure on an assignment, in the class, and dismissal from the University, per the [UMSL academic dishonesty policy](#).
 - Students are responsible for being attentive to and observant of campus policies about academic honesty as stated in the [University’s Student Conduct Code](#).

Student Resources



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Access, Disability and Communication

Students who have a health condition or disability, which may require accommodations in order to participate effectively in this course, should contact the **Disability Access Services Office**. Information about your disability is confidential.

- 144 Millennium Student Center (MSC)
 - Phone: (314) 516-6554
 - [Email](#)
 - [Website](#)
-

Office of International Students and Scholar Services

If you have difficulty communicating in English with the instructor of this course, contact ISS.

- 261 Millennium Student Center (MSC)
 - Phone: (314) 516-5229
 - [Email](#)
 - [Website](#)
-

Student Retention Services

SRS provides comprehensive support and intervention strategies that support your road to graduation!

- 225 Millennium Student Center (MSC)
 - Phone: (314) 516-5300
 - [Email](#)
 - [Website](#)
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Technical Support

GOAL Office

The GOAL was created to provide centralized direction and support to online and reentering adult students seeking degree completion at the University of Missouri-St. Louis (UMSL). Whether you are returning to school to complete an undergraduate degree started long ago or you desire to earn a Ph.D., we are here to guide you to completion. The GOAL staff will support and guide you, providing access to valuable resources. You may choose to continue your education in an online environment, traditional courses or blended opportunities. We are here to see you achieve academic success.

- 306 Social Sciences and Business Building (SSB) - Tower
- Phone: (314) 516-4211
- [Email](#)



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- [Website](#)

The Canvas Learning System

If you have problems logging into your online course, or an issue within the course site on Canvas, please contact the **Technology Support Center**:

- Phone: (314) 516-6034
- [Email](#)
- [Website](#)