

# **INTRODUCTION TO TRANSPORTATION**

## **A SUPPLY CHAIN PERSPECTIVE**

**University of Missouri -St. Louis**

**SP18-SCMA 3370/MKTG 3770**

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### **Instructor Summary of Qualifications**

Experienced, hands on operating executive with proven responsibilities and accomplishments in multi-industry global supply chain management roles with a passion to share and excite students with real world learning, principles, strategies as well as future career opportunities in Transportation, Logistics and Supply Chain management. Experienced in both forward as well as reverse logistics, trade compliance, network design, technology application and procurement. Experienced in all sizes and types of organizations – public, private and entrepreneurial. Skilled in raising awareness, influence and importance of supply chain management principles, strategy, theory and tactics in achieving corporate goals. Demonstrated success in applying these skills in real world business environments to build corporate competitive advantage and value through supply chain management. **Please see the “Faculty Information” tab for work related experience.**

### **Student-Faculty Communication**

As a former business executive and practitioner, your inquiries or questions will be answered as close to real time as possible. Weekly assignment grades will be posted no later than Tuesday following the Sunday due date, see course schedule on page 16 for assignments and due dates. The best and fastest way to reach me is via UMSL e-mail, [edwardsmg@umsl.edu](mailto:edwardsmg@umsl.edu) Mail comes directly to my mobile as well as Outlook.

### **Prerequisite**

Minimum campus GPS of 2.0; Junior standing or Instructor consent. The course is open to all students from any college or business major. This course provides an overview of the transportation sector, including history, providers, users and government regulation. The course will also discuss the importance, significance and contribution of transportation to the economy, the role of transportation and transportation technology in both the supply chain and in the firm, the operational aspects of transportation modes of rail, motor, air and pipeline as well as the impact of demand and supply on transportation.

### **Subject to Change**

This syllabus is subject to change at the discretion of the instructor to accommodate instructional and/or student needs. **It is the student's responsibility to keep abreast of such changes.** I use 'Announcements' to highlight any changes.

### **Learning Management System**

This course utilizes the CANVAS learning management system, "You Tube" and Panopto video recordings. Please be sure you are set up with CANVAS prior to starting the class.

### **Course Description and Format**

This fifteen-week online course is offered through the Supply Chain & Analytics Department as one of the electives required to complete the Undergraduate degree. It is primarily a qualitative course. Transportation is a multi-disciplinary field. No matter your major or college, there is a place for you in Transportation. This point is constantly emphasized to the student over the semester.

Importantly, Transportation and Logistics is an area where the student can experience tremendous opportunities for employment, advancement and a career of continuous learning. It is widely documented that there is a recognized talent gap in this area, particularly understanding and executing a Supply Chain process within the firm or institution. As you will see, Supply Chains are complex and collaborative in actual fact, with significant corporate risk exposure and competitive advantage at stake if managed correctly.

This course may be step one on your journey. The impact of Supply Chain related activities and processes, of which Transportation is one of the most significant and arguably **the** most critical—and complex—component of global supply chains, is front and center in establishing competitive advantage.

Transportation is an exciting area for technology application. In Transportation alone, attention and investment is focused on driverless vehicles and drones, employee wearables, Internet of Things (IoT), emissions reduction, cargo security, cloud based control towers, RFID, re/near/off-shoring network analytics, supply chain visibility, green packaging, 5G telecommunication and more. We talk about all of these as well as the technology stack

between order (DOM), warehouse management (WMS) and transportation management (TMS).

The course provides an overview of Transportation's role in domestic as well as global Supply Chain Management (**SCM**), modal operating characteristics, metrics, current topics and challenges, differences between modes as well as cost and pricing structures, government regulatory framework and modal history. The course will cover the operational aspects and evolution of transportation modes of rail, water (domestic and ocean), motor, air and pipeline. We will also explore how current macro-economic trends, pending legislation and regulation affect demand and supply of transportation and subsequently overall logistics management. The source material will be current articles, whitepapers and cases. Importantly, Transportation also contributes to the economy through Congressional, State and local funding for infrastructure improvements. We will discuss the importance of infrastructure funding, both private and public.

The Council of Supply Chain Management Professionals (**CSCMP**) defines Transportation as the physical movement of people and goods between origin and destination points. Transportation is part of the Logistics component of Supply Chain Management. Per CSCMP, Logistics management is "that part of Supply Chain Management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customers' requirements". Logistics management activities typically include inbound and outbound transportation management, fleet management, warehousing, materials handling, order fulfillment and processing, logistics network design, inventory management, supply/demand planning, and management of third party logistics services providers.

From a business standpoint, transportation links geographically separated partners and facilities in an organization's supply chain – customers, channel members, plants, warehouses and retail/distributor outlets. Whether by truck, train, plane, ship or pipeline, transportation facilitates the creation of time and place utility in the supply chain. Transportation is a five trillion dollar (**\$5T**) industry globally. It is a high cost, high impact supply chain activity. Transportation is digital as automation and advanced technology have taken root - think driverless trucking - and are rapidly expanding.

Each week supply chain related articles will be posted for your selection and review. This is an essential part of course content and will keep the student abreast of the rate of change both technologically as well as operationally, that defines SCM and Transportation management.

### **Learning Objectives**

- ❖ Describe the basic concepts of transportation management and its role in Supply Chain Management
- ❖ Identify the key elements and processes in managing transportation operations and how they interact

- ❖ Describe the challenges and requirements of planning and moving goods between countries
- ❖ Write critically about Transportation and how the transportation system reflects the interplay between technological, societal and economic factors

### **Class Format**

The format of each class block will include the following:

- A. Instructor Video Overview of the Weeks Topic supported by PowerPoint materials
- B. Selected Student Article Reviews from Prior Week
- C. Selected Videos and/or Web Links on Current Transportation and Supply Chain Topics
- D. Selected Articles on Transportation Specific to the Weeks Topic, e.g Motor, Ocean
- E. Weekly Discussion Boards
- F. Weekly Quizzes
  - a. The test may include a combination of multiple choice, short answer, problem solving and essay
  - b. The test will cover material presented in class, readings, articles and text

Each class block will be available on CANVAS the Monday of each week and is due by Sunday of the next week. Once released, it will be available on line for an additional week.

**Please note the student is responsible for the timely submission of all quizzes and assignments. Quizzes submitted after the due date will have five (5) points deducted for each late day. Quizzes close the Saturday following the due date.**

### **Research Paper**

Students will each write a research paper, approximately ten (10) to twelve (12) pages in length on a transportation topic of his or her choice. Please submit your preliminary topic by February 4. I am available for discussion if necessary. Students are encouraged to utilize the resources of the UMSL Mercantile Library which are available online as well as on the UMSL campus. Each paper should demonstrate critical thinking on the chosen topic and include some historical analysis, the reason for selection, personal interest and relevance to class material.

Recommend the 'Conclusion' be paragraph one.

Library resources will be found using the link <http://www.umsl.edu/services/library/index.html>

Click on the "databases" link from the Library homepage to search for databases sorted alphabetically or to locate a particular journal title. Recommended periodicals and papers include Journal of Commerce, Transport Topics, Railway Age, Wall Street Journal. Cited resources should be no earlier than 2015.

**You may use the style format (such as MLA, Chicago, etc.) with which you are familiar. I only ask that you be consistent in style format throughout the document.**

Most of these are online and are outstanding resources with a wealth of information. Additionally, transportation trade associations can also be used as resources, though they are 'political' in nature. Finally, there are many SCM magazines available from Firefox or Google on almost all topics.

### Grade Center

		Total Available
Weekly Study Block Tests	25pts	375pts
Supply Chain Briefing Article	10pts	150pts
Research Topic	25pts	25pts
Final Exam	75pts	75pts
Research Paper	100pts	100pts
		<hr/>
		<b>725 pts</b>

### Grade Scale

A	725-690	C	459-400
A-	689-650	C-	399-361
B+	649-610	D+	360-341
B	609-550	D	340-301
B-	549-500	F	300 OR BELOW
C+	499-460		

### Discussion Boards

You can earn extra credit by participating on CANVAS Discussion Boards. From time to time I may post a thread for your consideration. As well, I encourage students to post threads on Transportation related, Logistics or Supply Chain topics. Additional extra credit can be earned by responding to a student's post. I will monitor, but may or may not participate. All posts subject to UMSL academic guidelines below.

### Academic Honesty

Plagiarism is the use of another person's words or ideas without crediting that person. Plagiarism will not be tolerated and may lead to failure on an assignment up to dismissal from the University of Missouri-St. Louis

### Civility

Adherence to the Student Code is expected. My commitment is to create a climate for learning characterized by respect for each other and the contributions each person makes to the class. Please make a similar commitment.

### Privacy

Each faculty member is accountable for ensuring the confidentiality of all student educational records. All records and data maintained by UMSL is governed under the Family Educational Rights and Privacy Act (FERPA) of 1974.

### Online Class Netiquette/Behavior

1. **Be self-reflective** before you post an emotional response and reread what you have written to be sure it is positive. Think of your comments as printed in the newspaper. Your online comments will be seen, heard and remembered by others in the class.
2. **Use effective communication.**
  - Avoid the use of all caps or multiple punctuation elements (!!!, ???).
  - Be polite, understate rather than overstate your point, and use positive language.
  - If you are using acronyms, jargon or uncommon terms, be sure to explain them so everyone can understand and participate in the discussion.
3. **Ask for clarification** to a point if you feel emotional from a classmate's post. It is likely that you misunderstood his/her point. This strategy will also help you step away from the intensity of the moment to allow for more reflection.
4. **Sign your name.** It is easier to build a classroom community when you know to whom you are responding.
5. **Foster community.** Share your great ideas and contribute to ongoing discussions. Consider each comment you make as one that is adding to, or detracting from, a positive learning environment for you and your classmates.
6. **Be constructive.** You can challenge ideas and the course content, but avoid becoming negative online. When you disagree politely you stimulate and encourage great discussion. You also maintain positive relationships with others with whom you may disagree on a certain point.
7. **Keep the conversation on topic** by responding to questions, adding thoughtful comments about the topics at hand. Online dialogue is like conversation. If there is a particular dialogue going on, please add to it, but if you have something new to say, please post it in another thread.
8. **Define your terms.** When using acronyms or terms that are particular to your field (or new to our course), please define them for others.

### Title IX Policies

Under Title IX, all UMSL faculty, staff, and administrators (with limited exception) are obligated to report any incidents of sexual harassment, sexual misconduct, sexual assault, or gender discrimination to the Student Affairs office and/or other University officials. This ensures that all parties are protected from further abuses and that victim(s) are supported by trained counselors and professionals. Note: There are several offices at UMSL (e.g., Counseling Services, Health Services, Community Psychological Service, Center for Trauma Recovery, and Student Social Services) whose staff are exempt from Title IX mandated reporting, when the information is learned in the course of a confidential communication.

### Participation

- ✓ *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
- ✓ Documentation that a student has logged into an online class is not sufficient by itself to demonstrate academic attendance

- ✓ Participation in the course should maintain a positive work and learning environment as outlined in the UMSL Student Planner
- ✓ Postings should be well written with proper punctuation, spelling and grammar
- ✓ Avoid short one word postings, for instance “I Agree” unless accompanied by supporting statements
- ✓ There will undoubtedly be online discussions via blackboard discussion boards. Google “Hang Ups” has been selected as the third party media tool. Your success will depend on your ability to communicate, engage and participate in all course activities including discussion boards.
- ✓ It is a violation of University of Missouri policy to distribute recordings without my authorization and the permission of others recorded
- ✓ I will not respond to each post but will be monitoring the discussion

### **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.

### **Office of International Students and Scholar Services**

If you have difficulty communicating in English with the instructor of this course, contact the Office of International Students and Scholar Services ISS.

### **Student Retention Services**

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

### **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). 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.

#### **Technology**

If you are having difficulty with a technology tool in CANVAS (wiki, voicethread, Kaltura, etc.) consider visiting the **Online Course Orientation** in your [MyGateway course list](#). The orientation has overviews of each tool and tutorials on how to use them.

### **Academic Support**

#### **The Online Writing Center (OWC)**

At the OWC MyGateway site, students can send their papers to our tutors, who will read them and send them back with suggestions. Students can also access Turnitin, which identifies quoted material in their essays.

## Course Content

START DATE	TOPIC	TEXT READINGS	ASSIGNMENTS DUE	TEST	DISCUSSION BOARDS **	RESEARCH PAPER	POINTS AVAILABLE
	Course Welcome, Announcements, "Icebreaker" , Syllabus				X		5
16-Jan	Transportation in the Supply Chain	Chapter 1	21-Jan	X	X		35
22-Jan	Transportation Technology Applications and Analytics		28-Jan	X	X		35
29-Jan	Transportation and the Economy	Chapter 2	4-Feb	X	X		35
5-Feb	Transportation Law and Risk Management	Chapter 3,9	11-Feb	X	X		35
12-Feb	Fundamentals of Transportation Costing and Pricing	Chapter 4	18-Feb	X	X		35
19-Feb	Railroad Transportation Profile	Chapter 6	25-Feb	X	X	X	55
26-Feb	Pipeline Transportation Profile	Chapter 8 pg 277-290	4-Mar	X	X		35
5-Mar	Motor Carrier Transportation Profile	Chapter 5	11-Mar	X	X		35
12-Mar	Aviation Transportation Profile	Chapter 7	18-Mar	X	X		35
19-Mar	Inland Waterways Transportation Profile	Chapter 8 pg 261-277	25-Mar	X	X		35
26-Mar	SPRING BREAK						
2-Apr	Ocean Transportation Profile	Chapter 11	8-Apr	X	X		35
9-Apr	Transportation Intermediaries and Logistics Service Providers	Chapter 12	15-Apr	X	X		35
16-Apr	Global Transportation Planning	Chapter 10	22-Apr	X	X		35
23-Apr	Global Trade Management	Chapter 10	29-Apr	X	X		35
30-Apr	Urban Transportation		5-May	X	X		35
7-May	FINALS WEEK & Research Paper		12-May	X		X	175
	Grades Posted		16-May				
**	NOTE: DISCUSSION BOARDS ARE EXTRA CREDIT AND AVAILABLE ON GRADE CENTER ADDITIONAL DISCUSSION BOARDS ADDED FROM TIME TO TIME AND WILL BE REVISED INTO SYLLABUS AND COMMUNICATED IN NEW ANNOUNCEMENT			*** LATE QUIZ SUBMISSIONS SUBJECT TO FIVE (5) POINT DEDUCTION FOR EACH DAY LATE			