



**SCM589-01W (SCM541)  
Independent Study  
Model-Based Intelligence: Designing Effective Supply Chain Networks  
SCM Capstone Course Spring 2024  
January 10 – May 10, 2024**

**Professor Information**

**Professor: Marc A. Scott  
Office Hours: By Appointment (or send me an email anytime!)  
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**Course Information**

Materials – Textbooks:

- (1) **Designing and Managing the Supply Chain** by Simchi-Levy, Kaminsky & Simchi-Levy; McGraw-Hill; ISBN: 4 2022-9781264566204
- (2) **Value Stream Mapping: How to Visualize Work and Align Leadership for Organizational Transformation**, Martin Osterling , 1st Edition; McGraw ISBN: 0071828915/9780071828918
- (3) Additional readings to include Journal articles and essays are included in the Course Content section of this course.
- (4) Software Required: MExcel, MSPower Point, MSWord  
Optional Texts and/or Materials: none

**Course Description**

**SCM589 – Model-Based Intelligence: Designing Effective Supply Chain Networks**

As companies grow, managing the company's supply base, the need to plan and forecast astutely, control inventory, reduce costs, and respond to customer demands can become a daunting task. This course explores the use of mathematical optimization modeling, enterprise resource planning systems and the introduction of value-stream analysis to determine appropriate supply chain network design decisions. Ultimately, the goal is to create the most efficient and effective network possible, enabling the company to serve their internal and external stakeholders in an efficient and timely manner.

## Instructional Methods

This course is delivered in an online format for independent study. You will find the majority of the information and materials that you will need to successfully complete the course in this syllabus and on the D2Lcourse management website. Live lessons may be held periodically to allow students to OPTIONALLY log in and be involved in live discussion. These sessions will be recorded and available to all students.

## Course Objectives and Measurements

1. Students will demonstrate proficiency in spoken communications by delivering clear and well- structured business presentations.
2. Students will demonstrate proficiency in written communications by creating clear and well-structured business documents.
3. Students will identify and evaluate ethical and sustainable business issues.
4. Students will identify and evaluate global business challenges relative to sustainability in the
5. Students will be analytical problem solvers in business environments

Student Learning Outcomes (SLOs)	Objectives - After successfully completing this course, students will be able to:	Measurements (Outcome Assessments)
2, 3, 4 and 5	Understand Value-Stream Analysis as it relates and is applied in the firms' supply chain from a strategic, systems viewpoint and integrate continuous improvement as a part of the strategic management of their respective operations.	Objectives will be measured as follows: Evaluation of: Discussion 1 – Value Stream Mapping ABA Orientation Video Discussion 2 – Designing and Managing a Supply Chain Network ABA – Inventory Management Final Project
2, 3, and 5	Recognize emerging concepts in Value Stream Mapping and Supply Chain Management Network Design, relevant to supply chain management including: closed loop supply chain management, Inventory Management, Supply Chain Risk Management, to include logistics network planning, centralized and decentralized distribution strategies and supply chain management product design.	Evaluation of: ABA – Center of Gravity Case# 1 The Great Inventory Discussion 3 – Value Stream and the Supply Chain ABA – Supply Chain Management Outsourcing and Insourcing Final Project
2, 3, 4 and 5	How to design, measure and incentivize the supply chain network/supply base including financial impacts of strategic alliances in a supply chain/supply base, lifecycle assessment as well as managing and monitoring the supply chain/supply base.	Evaluation of: Discussion 3 – Value Stream and the Supply Chain Case# 2 The Smith Group ABA – Supply Chain Management Logistics and Supply Chain Management Final Project

## **COURSE SCHEDULE:**

A course schedule is included at the end of this syllabus

## **SYLLABUS SUBJECT TO CHANGE STATEMENT:**

I anticipate that we will follow the schedule I've outlined in this syllabus, but I may make adjustments based on what actually happens in class. I may also change the basis for the course grade (if I need to eliminate an assignment or something of that nature). If I do so, I will inform you in writing. Remaining in the course after reading this syllabus will signal that you accept the possibility of changes and responsibility for being aware of them.

## **ACADEMIC INTEGRITY:**

Academic honesty is the foundation of the university community. Cheating, plagiarism, or other acts of academic dishonesty compromises the integrity of the academic process and community and are subject to disciplinary action. For this class, plagiarism will result in automatic failure (final course grade of F).

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course.

Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

### References:

13.99.99. R0.03 Undergraduate Academic Dishonesty 13.99.99.R0.10 Graduate Student Academic Dishonesty

***An academic honesty policy has been posted under the Assignments Tab in D2L. You should read this document, sign it and submit by the due date in the syllabus.***

## **SPECIAL NEEDS/REASONABLE ACCOMMODATIONS:**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Student Disability Resources & Services Texas A&M University Commerce University Library Room 162

Phone (903) 886-5150 or (903) 886-5835 Fax (903) 468-8148  
[StudentdisabilityServices@TAMUC.edu](mailto:StudentdisabilityServices@TAMUC.edu)

#### **CAMPUS CONCEALED CARRY STATEMENT:**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University- Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M- Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to: ([http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAnd Students/34.06.02.R1.pdf](http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf)) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M- Commerce campuses. Report violations to the University Police Department at 903- 886-5868 or 9-1-1.

#### **TENETS OF COMMON BEHAVIOR STATEMENT:**

All students enrolled at the university shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment (See current Student Handbook).

#### **UNIVERSITY NONDISCRIMINATION STATEMENT:**

A&M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

#### **TAMUC Attendance**

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedure 13.99.99.R0.01](#).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

#### **COURSE POLICIES AND INSTRUCTOR EXPECTATIONS:**

Students are required to meet the expectations listed below:

**Professional Behavior:** It is important that you maintain a professional demeanor at all times, including during “electronic communication”. Texas A&M-Commerce expects this from you, as do current and future employers. Since so much communication in the workplace is “electronic” nowadays, this course will be a good place to practice interacting in a manner appropriate to a professional setting. In particular, take special care when posting and responding to discussion board questions:

- **Regular and Timely Attendance and Participation:** You are expected to log onto MyLeoOnline regularly. It is the responsibility of each student to keep up with the scheduled readings, discussions, and assignments/exams.
- **Changes to Schedule:** While I plan to stick to the class schedule, there might be occasions to modify the schedule. In these cases, all changes will be announced via the university D2L system and e-mail. It is your responsibility to become aware of any such changes.
- **E-mail:** Routinely check your **Texas A&M University-Commerce** email account. This is my primary mechanism for communicating outside of the class and D2L. Additionally, I check my e- mail several times a day, so this is the best way to reach me. I strive to respond to any email within 24 hours (even if it just to acknowledge receipt of the email while I continue to work on the request).

## ASSIGNMENTS:

**Format & Naming Convention:** Put your “LastnameFirstname” in the file name of all submitted documents. Example: “ScottMarc\_Assignment\_1.docx”. All assignments should be submitted in D2L in MS Word, Excel, or PowerPoint or PDF format. Any assignment submitted in other formats will be returned.

**Due Dates & Times:** Assignments are due at and on the **date** and **time** listed in D2L. You will have until **11:59 PM CST on the due date** to submit assignments.

**Assignments must be complete.** You must complete and submit all components at the specified due date and time to receive credit for the assignment. Please don't turn in work that is incomplete. While the syllabus designates specific dates for which work is assigned, you do not have to wait until the “assigned” date to start working on it (or to turn it in). In other words, you can work at your own pace as long as you meet the due dates. I suggest you set a calendar of when to work on assignments based upon your schedule, how long it takes you to complete assignments, and the assignment due dates. Start working on each assignment as soon as you possibly can and make sure that you have the all assignments submitted by the specified due dates. I have outlined a “suggested” schedule that I think would help you maintain a good pace, but you don't have to follow it. However, you **MUST** turn in all written assignments **ON TIME**. You will have until **11:59 PM Central Time** to submit the work.

**Submitted assignments must be correctly formatted and free of grammatical and stylistic errors.** Students should have at least some skills with software for word processing, spreadsheets, databases, graphics, and presentations, and with web browsers and search engines. Spelling and grammatical errors will detract from your grade!

**Late Policy:** This is a fast-paced course. Therefore, I will not accept late assignments. If you do not meet the deadline, you will receive a 0 for that assignment.

***Make-up Exams or Late Assignments are only accepted if you obtain university approved documentation for your excuse. There are no make-up assignments for poor performance.***

### Student Responsibilities or Tips for Success in the Course

There are individual tasks required for this course. In addition, there are several graded assignments that will require you to log in regularly into D2L. Participation is expected.

### Grading & Assignments Chart

Assignments	Value
Discussion Forums	20%
Application Based Activities (ABA)	15%
Comprehensive Final Exam	35%
Project Proposal & Executive Briefing	30%
Total	100%

### Comprehensive Exam

The Supply Chain Management (SCM) Comprehensive Exam will test your knowledge of operations management, supply chain management, quality management, business ethics, social responsibility, as well as Supply Chain/Supply Base Sustainability. This is the Supply Chain Management (SCM) Capstone Comprehensive Exam. You must attain a **70 or higher** grade on this Exam to graduate with the Supply Chain Management Master's degree.

DATE (MONDAYS)	WORK ASSIGNED: READINGS, ASSIGNMENTS, & EXAM	WORK DUE:
January 10	Introduction and Academic Honesty	Academic Honesty Statement – Due: January 14
January 15	Textbook: Value Stream Mapping Chapters 1	
January 22	Textbook: Value Stream Mapping Chapters 2	Discussion Question 1 due January 28
January 29	Textbook: Value Stream Mapping Chapters 3	ABA- Application Based Activity Orientation video due February 4
February 5	Textbook: Value Stream Mapping Chapter 4	Discussion Question 2 due February 11
February 12	Textbook: Designing and Managing Supply Chain  Chapter 1 Introduction to Supply Chain Chapter 2 Introduction to Risk Chapter 3 Network Planning	ABA - Inventory Management – Inventory Costs Due February 18  ABA - Center of Gravity/Centroid Method, Factor Rating Method and Distance Measurement due Feb 18
February 19	Textbook: Value Stream Mapping Chapter 5 – 6	Discussion 3 Due February 25
February 26	Textbook: Designing and Managing Supply Chain Chapter 4 Supply Contracts Chapter 5 The Value of Information	
March 4	Textbook: Designing and Managing Supply Chain Chapter 6 Supply Chain Integration Chapter 7 Distribution Strategies Chapter 8 Strategic Alliance  <b>Initial Project Proposal</b>	ABA - Lean Supply Chain Management-Kanban Pull System due March 10  Initial Proposal due March 10
March 11	<b>SPRING BREAK</b>	
March 18	Textbook: Designing and Managing Supply Chain Chapter 9 Procurement & Outsourcing Chapter 10 Coordinated Product & Supply Chain Design	ABA – Supply Chain Management- Outsource vs Insource due March 24
March 25	Textbook: Designing and Managing Supply Chain Chapter 11 Flexibility Chapter 12 Customer Value	ABA- Supply Chain Management- Logistics & Supply Chain Management Terms due March 31
April 1	Review for Comprehensive Final	

April 8	<b>Comprehensive Final Exam</b> Exam Opens April 8 @ 8AM Closes April 14 @ 11:59PM	
April 15	Textbook: Designing and Managing Supply Chain Chapter 13 Risk Management	
April 22	Chapter 14 Sustainable Supply Chains Chapter 15 Smart Pricing	
April 29	<b>Value Stream Project &amp; Executive Briefing</b>	Project Proposal and Presentation Due Monday, April 29, Presentation date, week of April 29 per availability of student and professor.