

Thursdays 5:30-8:15PM, Center City, Room 604

Instructor: Dr. Xiuli He, Belk College of Business & School of Data Science

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Office Hours on Zoom: Wednesdays, **2:00pm-5:00pm** or by appointment

Join Zoom Meeting

https://charlotte-edu.zoom.us/j/91857952698?pwd=dmNkTFowbXdtN0ZSaG5oOVdjRUtaUT09

Meeting ID: 918 5795 2698

Passcode: fall2022

#### **COURSE DESCRIPTION**

This course helps students to understand how to manage and improve the performance of supply chains through better decision-making and coordination. The course will focus on the models, solution methods and strategies in the design, planning, and operation of effective supply chains and the new opportunities, issues and concepts introduced by the Internet, e-commerce, and new information technology. A variety of teaching methods will be used to achieve the learning objectives, including lectures, class discussions, analysis and presentation of critical cases and articles. This course emphasizes on students' active participating role in the learning process.

#### **LEARNING OBJECTIVES**

- Learn the three key supply chain decision phases, push/pull views, and supply chain macro processes.
- Learn the goal of a supply chain and the impact of supply chain decisions on the success of the firm.
- Describe how to achieve strategic fit between a firm's supply chain strategy and its competitive strategy.
- Learn the key financial measures and major drivers of supply chain performance.
- Learn the strengths and weaknesses of various supply chain distribution strategies. Understand how the online sales impact the design of distribution networks.

- Identify components of a demand forecast. Forecast demand given historical demand using forecast models.
- Describe supply chain coordination and understand the obstacles and methods to achieve coordination.
- Learn different inventory models and determine optimal inventory levels in a supply chain.
- Understand the benefits and risks of sourcing in a supply chain. Discuss the factors that affect the decision to outsource a supply chain function.
- Understand the role of revenue management in a supply chain and identify the trade-offs when making revenue management decisions.

#### **COURSE MATERIALS**

## **Reading Materials**

- "Supply Chain Management: Strategy, Planning, and Operation" by S. Chopra. Pearson-Prentice Hall, 7<sup>th</sup> ed., ISBN-13: 9780134731889 (**Required**).
- "Designing and Managing the Supply Chain: Concepts, Strategies and Case Studies" by David Simchi-Levi, Philip Kaminsky and Edith Simchi-Levi. McGraw-Hill. 3rd ed., 2008 (optional)
- Harvard Business Cases: Required

#### Websites:

Supply Chain Management Review: <a href="http://www.scmr.com/">http://www.scmr.com/</a>

### Course Website: http://canvas.uncc.edu

- **Course Notes:** PowerPoint slides will be posted on Canvas. You will be expected to supplement this with your own notes taken in class.
- **Grades:** Grades on exams and assignments will be posted on Canvas. Please check that the grade posted matches the grade on your paper copy and notify the instructor as soon as possible in case of a discrepancy.

#### Withdrawal from Class:

The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "U" in a course if you choose not to attend the class once you are enrolled. The last day to withdraw from a course (grade subject to Withdrawal Policy) is Oct. 24<sup>th</sup> 2022.

### **Incomplete Grade Policy:**

Receiving a grade of incomplete ("I") is not based solely on a student's failure to complete work or as a means of raising his/her grade by doing additional work after the grade report time. As per <u>university policy</u>, incomplete grades will be granted when a student who is otherwise passing has not, due to circumstances beyond his/her control, completed all the work in the course. The

missing work must be completed and the final grade reported within one calendaryear from the date on which the "I" grade was recorded. The instructor assigning the "I" grademay specify a shorter time than one year for completion of the work and the assignment of a final grade. If the "I" is not removed during the specified time, a grade of "F", "U", or "N", asappropriate is automatically assigned. Time extensions for the completion of an "I" beyond oneyear cannot be approved except by special request to the Graduate School under extraordinary circumstances. The grade of "I" cannot be removed by enrolling again in the same course, and students should not re-enroll in a course in which they have been assigned the grade of "I".

#### **COURSE ASSESSMENT**

The course grades will be based on two exams, three homework assignments, class participation, case reports, and one final group project.

Assignment	Individual/Group	% of Grade
Exam 1	Individual	100
Exam 2	Individual	100
Homework Assignment	Individual	30
Class Participation	Individual	9
Case reports	Group	16
Group Project	Group	25

#### **Exams**

The two exams, Midterm Exam (Oct. 6<sup>th</sup>) and Final Exam 2 (Dec. 15<sup>th</sup>), are NOT cumulative. There will be no makeup exams. Conflicts for the exams must be resolved before the exam dates. You should contact me at least one weeks prior to the exam date. Last minute requests will not be accepted. The only reasons for not being able to sit for an examination in its announced time should be part of University policy, or a documented medical excuse. The penalty for a missed exam is a zero grade on that exam. Missing an exam without prior approval and/or providing supporting documentation within the following timeframe will lead to a grade of zero for that exam. In the event that the excuse is approved before the exam date (in rare case and requires supporting documentation), the student will be given a make-up exam. A student who misses an exam without prior approval, possibly due to unexpected situation on the exam day, should contact the instructor within 12 hours of the exam start date/time and provide appropriate supporting documentation to be eligible for a makeup exam. It is the student's responsibility to be aware of and follow the make-up exam policies and no special accommodations will be made for any exceptions. No makeup exam will be given after the last day of class.

#### "Re-grade" Requests

Any request to re-grade any component of your submissions (assignment or exam or project) has to be made within **seven (7) days** after the grade has been posted on the Canvas. Given the speed with which the course progresses, any request beyond this deadline cannot be considered. The only exception to this rule is a documented emergency. Write a brief note explaining why you

think there is an error in grading. Attach a copy of the graded assignment. The instructor reserves the right to re-grade the entire contents of any submitted assignment. Your grade may go up or down.

### **Case Report**

Each group needs to write two case reports. Each case is worth 8 points. Case analyses should have clear and concise problem statement and well-justified recommendations. The analysis and recommendations must be supported by case facts; assumptions must be reasonable and clearly stated. In preparing the case report, position yourself as an analyst or consultant who is presenting the analysis and making recommendations to the manager.

Case write-ups must be <u>no more than **10 pages**</u> (12-point font, 1inch margins on all sides, 1.5 line-spaced) in length, accompanied by three or fewer supporting exhibits if necessary.

<u>Submit your case report through email by 5:00PM on the day the case will be discussed</u>. Case analyses must be typed. Please keep a copy of your write-up for your own use during class discussion. Solutions to cases will not be distributed. Instead, we will rely on the class session associated with the assignment to bring out the most important issues.

The case reports will be graded based on the following dimensions:

- Proper diagnosis of the problem;
- Quality of the analysis (including clear statement of criteria for evaluation and assumptions, and the use of relevant tools);
- Quality of presentation (including logical consistency, and linkage between problem definition, analysis, and recommendations).
- Answer the questions concisely and logically and provide justifications.

#### Class attendance and participation

Each student is expected to attend every class since learning will be through case analysis, presentation, and discussion. Students' contributions are highly expected to create and enhance a positive learning environment for this course. Any student who misses three or more unexcused absences may fail the class, unless truly exceptional circumstances are involved. In such cases, the student is required to seek prior approval from the professor before missing the class. Grading will be based on the quality and impact of your class participation. Voluntary class participation will consist of voluntary contributions and occasional cold calls, usually to answer questions. Strong participation is founded on adequate preparation. When students are prepared, the class discussion and the learning process are greatly enhanced. What you get out of this course is a direct reflection of how much you put into it. Cold calls are expected during case discussions. If you feel uncomfortable with being called on in class, please let me know in advance so that we can agree on an alternative mode of interaction.

To evaluate your contribution to the class discussions, the following **criteria** are to be applied:

Is the comment accurate, reflecting case facts?

- Does the comment add to our understanding of the problem situation?
- Is the comment timely and linked to the comments of others?
- Does the comment move the discussion along by giving a new perspective?
- Does the comment reflect a concern for maintaining a constructive and comfortable classroom atmosphere?
- Is the comment clear and concise?

#### Homework

The purpose of homework assignments is to provide learning reinforcement and promote class preparations. You will find that the homework provides excellent learning feedback and is a confidence-building tool. The assignments will also help with your preparation for the exams.

There are three homework assignments total 60 points. Each homework assignment is worth 10 points. For homework, please upload files (WORD, PDF, or EXCEL files) electronically on Canvas. Assignments submitted within 24 hours of the due date/time will be graded for a maximum of 75% of the original points for that assignment. Assignments submitted after 24 hrs of the due date/time will receive a grade of zero. No exceptions are allowed for this late policy. Identical assignments will be in violation of university regulations and will receive ZERO credit. Solutions to the homework assignments will be posted on Canvas. Please study each solution carefully.

### Discipline in class

I would expect you to behave professionally and respectfully at all times during the class. As with any other group activity, be acutely aware that your actions in class can have negative externalities that can collectively affect the performance of the entire group. Please <u>refrain from</u> <u>the use of cell phones, text messaging, reading the newspaper</u>, etc. during class. Participation scores may be adjusted for students who consistently display unprofessional behavior.

#### **DISABILITY POLICY**

UNC Charlotte is committed to access to education. If you have a disability and need academic accommodations, please provide a letter of accommodation from Disability Services early in the semester. For more information on accommodations, contact the Office of Disability Services at 704-687-0040 or visit their office in Fretwell 230.

### **DIVERSITY POLICY**

The University of North Carolina Charlotte and the Belk College of Business strive to create an inclusive academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

#### **ACADEMIC INTEGRITY**

Students have the responsibility to know and observe the requirements of <u>The UNC Charlotte</u> <u>Code of Student Academic Integrity</u> available online at <a href="http://legal.uncc.edu/policies/up-407">http://legal.uncc.edu/policies/up-407</a>. This

code forbids cheating, fabrication or falsification of information, multiple submissions of academic work, plagiarism (which includes viewing others work without instructor permission), abuse of academic materials, and complicity in academic dishonesty. *This forbidding includes sharing/copying work between individuals or teams without permission of instructors.* Any special requirements or permission regarding academic integrity in this course will be stated by the instructor, and are binding on the students. Students who violate the code can be expelled from UNC Charlotte. The normal penalty for a first offense is zero credit on the work involving dishonesty and further substantial reduction of the course grade. In almost all cases the course grade is reduced to failing. Students are expected to report cases of academic dishonesty to the course instructor.

### **Title IX Reporting Expectations**

UNC Charlotte is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you (or someone you know) has experienced or experiences any of these incidents, know that you are not alone. UNC Charlotte has staff members trained to support you in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with civil protective orders, and more.

Please be aware that all UNC Charlotte employees, including faculty members, are expected torelay any information or reports of sexual misconduct they receive to the Title IX Coordinator. This means that if you tell me about a situation involving sexual harassment, sexual assault, dating violence, domestic violence, or stalking, I am expected to report the information to the Title IX Coordinator. Although I am expected to report the situation, you willstill have options about how your case will be handled, including whether or not you wish to pursue a formal complaint. Our goal is to make sure you are aware of the range of options available to you and have access to the resources you need.

If you wish to speak to someone confidentially, you can contact the following on-campus resources, who are not required to report the incident to the Title IX Coordinator: (1) UniversityCounseling Center (counselingcenter.uncc.edu, 7-0311); or (2) Student Health Center (studenthealth.uncc.edu, 7-7400). Additional information about your options is also available at titleix.uncc.edu under the "Students" tab.

All students are required to abide by the UNC Charlotte <u>Sexual Harassment Policy</u> and the policy on <u>Responsible Use of University Computing and Electronic Communication Resources</u>. Sexual harassment, as defined in the UNC Charlotte Sexual Harassment Policy, is prohibited, even when carried out through computers or other electronic communications systems, including course-based chat rooms or message boards.

#### **Accommodations for Religious Observances**

UNC Charlotte provides reasonable accommodations, including a minimum of two excused absences each academic year, for religious observances required by a student's religious practice or belief. Please refer to <a href="https://legal.uncc.edu/policies/up-409">https://legal.uncc.edu/policies/up-409</a> for details on requesting such accommodations.

# **Copyright Ownership in Course Materials**

The lectures and course materials, including presentations, tests, exams, outlines, and similar materials, are protected by copyright. The instructor is the exclusive owner of copyright in those materials created by the instructor. You are encouraged to take notes and make copies of course materials for your own educational use. However, you may not, nor may you knowingly allow others to reproduce or distribute lecture notes and course materials publicly without express written consent of the instructor. This includes providing materials to commercial course material suppliers such as Course Hero and other similar services. Students who publicly distribute or display or help others publicly distribute or display copies or modified copies of an instructor's course materials may be in violation of University Policy 406, The Code of Student Responsibility. Similarly, you own copyright in your original papers and exam essays. If the instructor is interested in posting your answers or papers on the course web site, the instructor will obtain your written permission.

### **TENTATIVE COURSE SCHEDULE**

Date	Topics	Chapter	Due
8/25	Syllabus & Introduction	Ch1	
9/1	Strategic fit, Supply Chain Drivers and Metrics, Designing Distribution Strategies	Ch2, Ch3 &Ch4	
9/8	Demand Forecasting	Ch7	Group formation due
9/15	Supply Chain Contracts and Channel Coordination	Ch10	Case report due
9/22	Cycle Inventory Management	Ch 11	
9/29	Safety Inventory Management	Ch12	HW 1 due Oct. 5th
10/6	Exam 1	Ch1, Ch3, Ch4, Ch	7, Ch10, Ch11, &Ch12
10/13	Optimal Level of Product Availability	Ch13	Project Proposal Due
10/20	Transportation & Guest Speaker	Ch14	
10/27	Procurement and Sourcing	Ch15	HW2 due
11/3	Revenue Management	Ch16	
11/10	Sales and Operations Planning	Ch9	Case report due
11/17	Risk-Pooling Strategies to Reduce and Hedge Uncertainty (Guest Speaker)	Slides	HW3 due
11/24	Thanks-giving holiday- No Class		
<mark>12/1</mark>	Final Project Presentation		
<mark>12/2</mark>	Final Project Report due by 5:00pm		
12/15	Exam 2	Ch9, Ch13, Ch14, Ch15, Ch16, and lecture slides	

#### Note:

- These descriptions and timelines are <u>subject to change</u> at the discretion of the instructor. Notice of such changes will be by announcement in class or by changes to this syllabus posted on Canvas.
- Check the updated final exam schedule for Fall 2022: https://ninercentral.charlotte.edu/sites/ninercentral.charlotte.edu/files/media/Final-Exam-Template-Fall-2022.pdf

#### **FINAL PROJECT GUIDELINES**

The objective of the project is to apply what you have learned in class to industries and practices of your own choosing or explore more topics related to e-commerce and supply chain management. There are three options for your final project:

- 1. Case study: Choose an organization and analyze its supply chain strategies and practices.
- 2. Comparative study: Identify two organizations competing in the same industry (or closely related industries) that have different supply chain strategies you can compare and contrast.
- 3. Other topics: Explore topics that are not covered in the syllabus.

Please form a group with 3 to 5 students. Please use the following link to sip up a group: <a href="https://docs.google.com/document/d/12OF79e2h4ckMv0nlMWTodRGyQvMCeJtCG9LpgBNLxNI/edit">https://docs.google.com/document/d/12OF79e2h4ckMv0nlMWTodRGyQvMCeJtCG9LpgBNLxNI/edit</a>

Each group will present your findings to one another on <u>Dec. 1<sup>st</sup></u>. Your final report (one per group) should be turned in by 5PM on <u>Dec. 2<sup>nd</sup></u>. In addition, a 1-page project proposal (one per group) should be turned in before the beginning of class on <u>Oct.6<sup>th</sup></u> with the following items:

- Group members (with emails listed)
- Project title
- Project type (case, comparative study, or other topics)
- Description
- Plan (bullet points outlining how you will complete the project by the due date)

The final project report should follow the guidelines below:

- 12 point font, 1 inch margins on all sides, line spacing of 1.5
- No more than 15 pages (including references, figures, and appendices)

### **Option 1: Case Study**

Choose an organization and analyze its supply chain strategy and practice. The organization can be one you know well or one that you would like to learn more about. When choosing a company (or an operating unit) to study, please think about how you will access data in order to evaluate the company's supply chain strategy. When you complete your analyses you can draw upon secondary data (e.g., company annual reports, analyst reports, articles from the press) and primary data (e.g., interviews, personal experience with the company). You may select a

company that we have studied in class, but if you do this you must examine an issue (or issues) different from what we examined in class. Please remember that the best studies offer not only compelling reasoning, but also facts to support those opinions.

The case study should consist of the following two parts:

- 1. Background about the organization:
  - a. A description of the company (or operating unit) and its competitive environment
  - b. Brief historical information if applicable
  - c. A description of the company's existing supply chain strategy and practice
  - d. An overview of the company's supply chain objectives and challenges
- 2. Analysis and Recommendation (This part should center on the supply chain objectives and challenges identified in part 1)
  - a. An evaluation of the company's supply chain strategy and practice by drawing on the concepts covered in the course
  - b. Identify strengths and weaknesses in the company's supply chain strategy and practice
  - c. A recommendation for improvement (this could involve several options to tackle the weaknesses or challenges the company faces in managing its supply chain)
  - d. Discuss how the company will implement this improvement plan (i.e., how the company will build the necessary supply chain capabilities)

# **Option 2: Comparative Study**

Identify two organizations competing in the same industry (or closely related industries) that have different supply chain strategies and practices you can compare and contrast. The organizations can be ones you know well or ones that you would like to learn more about. When choosing companies (or operating units) to study please think about how you will access data in order to evaluate the companies' supply chain strategies. When you complete your analyses you can draw upon secondary data (e.g., company annual reports, analyst reports, articles from the press) and primary data (e.g., interviews, personal experience with the company). You may select a company that we have studied in class, but if you do this you must examine an issue (or issues) different from what we examined in class. Please remember that the best studies offer not only compelling reasoning, but also facts to support those opinions.

The comparative study should consist of the following three parts:

- 1. Background about the industry
  - a. A description of the industry and the major competitors
  - b. Brief historical information if applicable
  - c. Overview of industry trends on supply chain practices
- 2. Background about each organization:
  - a. A description of the company (or an operating unit)

- b. Brief historical information if applicable
- c. A description of the company's existing supply chain strategy and practice
- d. An overview of the company's supply chain objectives and challenges
- 3. Analysis and Recommendation (This part should center on the supply chain objectives and challenges identified in part 2)
  - a. A comparison of each company's supply chain strategy and practice by drawing on the concepts covered in the course. You do not need to compare all dimensions, but rather focus on the aspects that are most relevant (e.g., different). Depth of analysis is preferred over a broad, but shallow paper.
  - b. Contrast the strengths and weaknesses in each company's supply chain strategy and practice.
  - c. Make a recommendation on how the organizations may improve their supply chain practices in order to compete more effectively against each other (or in the marketplace).
  - d. You may comment on how the companies may implement your improvement plan (i.e., how will the companies build the necessary supply chain capabilities). This part is not required.

### **Option 3: Other topics**

Explore topics that are not covered in the syllabus. Example topics may include but are not limited to the following:

- Supply chain risk and disruption management
- Supply chain finance
- Data driven supply chain analytics
- Sustainable and socially responsible supply chain management
- And other topics