

SCM 7330-01 (20991)
Demand and Supply Integration
Spring 2021
Bauer College of Business; University of Houston
Department of Decision and Information Systems

Instructor: Dr. Funda Sahin, Associate Professor of Supply Chain Management
E-Mail: fsahin@uh.edu (Use email to contact the instructor; do not use Blackboard messaging system).
Class Time: 6:00 - 9:00 pm CT, Monday (Synchronous Sessions via Zoom)
Office Hours: 4:30 - 5:30 pm CT, Monday or by appointment

COURSE DESCRIPTION

Supply chain management is the integrated management of the flow of materials, products, services, and cash from the suppliers all the way to the customers and often from the customers back to the suppliers. Due to the large-scale and complex nature of supply chains, effective management of these flows is a challenging task and requires integration within the firm and across the supply chain. This is often referred to as Demand-Supply Integration, where the challenge is to balance the customers' demand characteristics with the supply chain's capabilities for providing the product. Strategically managing both the customer's demand characteristics and supply chain processes accomplishes this balance through a deep understanding of a firm's distribution and manufacturing planning and control (DMPC) systems (which are embedded in Enterprise Resource Planning (ERP) systems in a great number of organizations) and by tailoring them to provide competitive advantage.

COURSE OBJECTIVES

This course provides an understanding of the strategies and techniques used to obtain demand and supply integration. Specifically, the focus is on (1) the components comprising the DMPC and their integration and (2) alternative strategies for balancing demand and supply.

PRE-REQUISITES OR CO-REQUISITE: SCM 6A01

COURSE TEXTBOOK AND OTHER MATERIALS

Textbook: *Manufacturing Planning and Control for Supply Chain Management- The CPM Reference – Second Edition* by Jacobs, F. R., Berry, W. L., Whybark, D. C. and Vollmann, T. E. (2018). ISBN 978-1-260-10838-5

Case studies: There is a course page created on Harvard Business Online for you, where you can access the cases required for the course. The link is below:

<https://hbsp.harvard.edu/import/795233>

You will have to register with Harvard Business Online to get access to the cases the easiest and the least expensive way.

STRUCTURE OF THE COURSE

This course meets once a week online via live (Zoom) sessions. Hence, every session is important. Class activities are designed to discuss the material covered by the cases and readings. However, class activities only enhance the materials found in the texts, not replace them. In order to have meaningful live class sessions, you must read the assigned course material **BEFORE** the live session and be prepared to discuss during the session!

GRADES

A 100 point scale is used for this course. Grades will be made up of the following items:

Exam 1: It measures the mastery of the course material. The exam will be closed book and notes. The instructor will provide all mathematical formulas and statistical tables as needed. The exam will cover all material from lectures, readings, videos, exercises, study problems, etc. The exam format will be discussed during class time. Each student will be allowed to use a regular calculator during the exam. Cell phones cannot be used instead of calculators. Respondus Monitor and LockDown Browser will be required to take the exam.

Exam 2: It measures the mastery of the course material. The exam will be closed book and notes. The instructor will provide all mathematical formulas and statistical tables. The exam format will be discussed during class time. Each student will be allowed to use a regular calculator during the exam. Cell phones cannot be used instead of calculators. Respondus LockDown Browser will be used for taking the exam.

Quizzes: There will be quizzes during the semester. Each will entail knowledge of materials already assigned or discussed. Preparing notes on discussion questions, working assigned problems and reviewing material assigned will enhance performance on the quizzes. At the end of the semester, the lowest quiz grade will be dropped. If a student misses a quiz (e.g. for illness, job related reasons, or any other circumstances), that quiz will count as the lowest grade and will be dropped at the end of the semester. Respondus Monitor and LockDown Browser will be required to take the quizzes.

Case Analysis: Each student will be assigned to a team for case analysis. The team will prepare the case for in online presentation and present their analysis during call time. The presenting team should provide copies of the power point slides and other relevant material to the professor on the due date.

In Class Performance: I view each class meeting (live session) as a business meeting. During this time the course material and topic will be discussed. Each student is expected to actively participate during class meetings. Your contributions toward advancing the class' understanding of the course material provide the basis for your in-class performance grade. The quality of one's contributions versus the quantity of contributions weighs more heavily in demonstrating a high level of in-class participation. Insightful analysis of the day's topics is a plus. Class attendance in live sessions alone does not indicate in-class performance —you must make a contribution to class learning as appropriate.

| Grade Calculation: | <u>Percentage</u> |
|---------------------------|-------------------|
| Exam 1 | 30% |
| Exam 2 | 30% |
| Case Analysis | 15% |
| Quizzes | 15% |
| In-class performance | <u>10%</u> |
| Total | 100% |

In determining the final course grade, the following scale is used to convert points into letter grades:

| | | | |
|------|------------|------|-----------|
| A = | 93 - 100 % | C+ = | 78 - 79 % |
| A- = | 90 - 92 % | C = | 70 - 77 % |
| B+ = | 88 - 89 % | D = | 60 - 69% |
| B = | 80 - 87 % | F = | 0 - 59% |

MAKE-UP EXAM POLICY

The syllabus contains the dates of the exams so that you can schedule your other activities around these dates. If a major exam is to be missed due to an approved university absence, you should inform the instructor as soon as possible prior to the exam (if not possible, no later than 24 hours after the exam). A make-up exam will then be scheduled as soon as possible. The make-up exam will cover all the material presented up to the date of the make-up exam. The format of the exam may be different than the original exam format.

GENERAL POLICIES

As students enrolled in courses offered by the Bauer College, you are expected to adhere to the ethical principles described in the Bauer Code of Ethics and Professional Conduct (Bauer Code), in addition to those required by the UH Student Handbook. You may review the Bauer Code by clicking on the following link - <http://www.bauer.uh.edu/BCBE/BauerCode.htm>. You may obtain a copy of the UH Student Handbook from the Dean of Students Office located in room 252 of the University Center, or by visiting the publications webpage on the Dean of Student's website at <http://www.uh.edu/dos/pub.html>.

- 1. Excused Absence Policy:** Regular class attendance, participation, and engagement in other course-required activities are important contributors to student success. Absences may be excused as provided in the University of Houston [Graduate Excused Absence Policy](#) for reasons including: medical illness of student or close relative, death of a close family member, legal or government proceeding that a student is obligated to attend, recognized professional and educational activities where the student is presenting, and University-sponsored activity or athletic competition. Additional policies address absences related to [military service](#), [religious holy days](#), [pregnancy and related conditions](#), and [disability](#).
- 2. Technology Use during the Sessions:** It is expected that you attend to every live session on time and stay until the end of the session and be ready to participate in the discussion. In order to avoid any distraction during sessions, please close all non-course related programs/websites (email, Internet sites, chat, etc.) on your computers and put your cell phones on silent before joining the sessions. Access to a webcam is required for students participating remotely in this course. Webcams must be turned on during class time and assessments (quiz, exam, etc.). Please remember to mute your microphone unless you are speaking.
- 3. Recording of Class:** Students may not record all or part of class, livestream all or part of class, or make/distribute screen captures, without advanced written consent of the instructor. If you have or think you may have a disability such that you need to record class-related activities, please contact the [Center for Students with Disabilities](#). If you have an accommodation to record class-related activities, those recordings may not be shared with any other student, whether in this course or not, or with any other person or on any other platform. Classes may be recorded by the instructor. If recorded and shared by the instructor, students may use instructor's recordings for their own studying and notetaking. Instructor's recordings are not authorized to be shared with *anyone* without the prior written approval of the instructor. Failure to comply with requirements regarding recordings will result in a disciplinary referral to the Dean of Students Office and may result in disciplinary action.
- 4. Resources for Online Learning:** The University of Houston is committed to student success, and provides information to optimize the online learning experience through our [Power-On](#) website. Please visit this website for a comprehensive set of resources, tools, and tips including: obtaining access to the internet, AccessUH, and Blackboard; requesting a laptop through the Laptop Loaner Program; using your smartphone as a webcam; and downloading Microsoft Office 365 at no cost. For questions or assistance contact UHOnline@uh.edu.
- 5. Student Communication:** It is expected that you follow rules of common courtesy in all course communication including, but not limited to email messages, discussions, and chats. All communication should be civilized and respectful to all. Course tools also need to be used in a respectful manner. Any disruptive behavior or activity will not be tolerated.
- 6. Office Hours:** There will be regularly scheduled office hours via Zoom. If for some reason you need to meet at an alternate time, please contact the professor for arrangements. You are encouraged to contact the professor at the first sign of any problem or lack of understanding. Do not wait until it is too late! However, office hours are not meant for lecturing on the course material you missed. You are expected to review all the lecture notes, read all the assigned course material, work on the suggested problems before contacting the professor for assistance on a topic.
- 7. Study Groups:** I strongly encourage students to form study groups for the course. This will provide a resource for information should you miss class, a venue for discussing assignments, and a study group for exams.
- 8. Blackboard:** Course materials, announcements, grades or changes to the course outline will be posted on Blackboard Learn. It is the student's responsibility to check Blackboard before every class period for important announcements, class notes, emails, grades and changes to the course schedule.
- 9. Respondus Monitor and LockDown Browser:** LockDown Browser is a locked browser for taking tests in

Blackboard Learn. It prevents you from printing, copying, going to another URL, or accessing other applications during a test. When a Blackboard test requires that LockDown Browser be used, you will not be able to take the test with a standard web browser. LockDown Browser should only be used for taking Blackboard tests. It should not be used in other areas of Blackboard. You will be required to use LockDown Browser with a webcam, which will record you during an online exam/quiz. (The webcam feature is sometimes referred to as “Respondus Monitor.”). You must have a reliable computer with a functioning webcam and a microphone. A broadband connection is also required.

You will take both exams and the quizzes using Respondus Monitor and LockDown Browser. You can find more information about Respondus Monitor and LockDown Browser and how to download the software on Blackboard. In order to test out the software, your equipment and connection, you will be required to take a test quiz (which will not be graded) at the beginning of the semester.

Important Reminders About Completing Assignments & Taking Tests Online

Please be mindful of deadlines, testing dates, account logins, and your computer equipment. Recommendations for successful completion of the exam:

- Avoid taking exams online using a smartphone or smart device. Use a computer- laptop or desktop.
- Connect your computer to a charger, do not rely on the battery alone.
- Restart and run software updates (Windows or OSX, and Java updates) long before your test time.
- Make sure that your internet connection is stable. Connect to the internet using an Ethernet cable if available.
- During the exam, shut off all internet devices, including cellphones connecting to your local network.
- Save all bandwidth for your exam, tell people sharing your internet not to use it while taking exams, ask them to turn off Wi-Fi on all cellphones during this time.

Academic Dishonesty: Scholastic Dishonesty is defined as (1) Acquiring or attempting to acquire information from others (e.g., observing the work of others during an exam), (2) Providing others with information on quizzes/exams; (3) Plagiarism, (4) Conspiracy to commit any of the above, (5) Fabrication of information. The University of Houston honor code statement applies to all students in this class. Any student caught providing or receiving assistance on an exam/quiz/homework assignment will immediately be given a grade of “F” for the course.

Students may be asked to sign an honor code statement as part of their submission of any graded work including but not limited to projects, quizzes, and exams: *“I understand and agree to abide by the provisions in the ([University of Houston Graduate Academic Honesty Policy](#)). I understand that academic honesty is taken very seriously and, in the cases of violations, penalties may include suspension or expulsion from the University of Houston.”*

10. **Students with Disabilities:** Any student who feels s/he may need an accommodation based on the impact of a disability should contact the professor privately within the first week of class to discuss his/her specific needs. The student also needs to contact the Center for Students with Disabilities (contact information is below) within the first two weeks for coordinating accommodations.

Justin Dart Center for Students with Disabilities
CSD Building #568, Room #110, University of Houston, Houston, Texas 77204-3022
Phone: (713) 743-5400; TDD: (713) 749-1527

11. **Counseling and Psychological Services (CAPS):** CAPS can help students who are having difficulties managing stress, adjusting to college, or feeling sad and hopeless. You can reach CAPS (www.uh.edu/caps) by calling 713-743-5454 during and after business hours for routine appointments or if you or someone you know is in crisis. Also, there is no appointment necessary for the “Let’s Talk” program, which is a drop-in consultation service at convenient locations and hours around campus. http://www.uh.edu/caps/outreach/lets_talk.html.

Helpful Information

COVID-19 Updates: <https://uh.edu/covid-19/>

Coogs Care: <https://www.uh.edu/dsaes/coogscare/>

Laptop Checkout Requests: <https://www.uh.edu/infotech/about/planning/off-campus/index.php#do-you-need-a-laptop>

Health FAQs: <https://uh.edu/covid-19/faq/health-wellness-prevention-faqs/>

Student Health Center: <https://uh.edu/class/english/lcc/current-students/student-health-center/index.php>

HAVE A GREAT SEMESTER!

SPRING 2021 SCM 7330 - Tentative Course Schedule

WEEK 1- JANUARY 25, 2021

- Course Overview
- Introduction to Demand & Supply Integration

WEEK 2- FEBRUARY 1, 2021

- Supply Chain Strategy

WEEK 3- FEBRUARY 8, 2021

- Demand Management

WEEK 4- FEBRUARY 15, 2021

- Medium/Long-Term Forecasting

WEEK 5- FEBRUARY 22, 2021

- Inventory Management (Incremental Analysis & Newsvendor Model)

WEEK 6- MARCH 1, 2021

- Revenue Management

WEEK 7- MARCH 8, 2021

- Bullwhip Effect

WEEK 8- MARCH 15, 2021 - No Class: Spring Break

WEEK 9- MARCH 22, 2021

- Exam 1

WEEK 10- MARCH 29, 2021

- Sales & Operations Planning

WEEK 11- APRIL 5, 2021

- Sales & Operations Planning (Continued)
- Master Production Scheduling

WEEK 12- APRIL 12, 2021

- Master Production Scheduling (Continued)
- Material Requirements Planning

WEEK 13- APRIL 19, 2021

- Material Requirements Planning (Continued)
- Course Wrap-up

WEEK 14- APRIL 26, 2021

- Team Case Presentations

WEEK 15- MAY 3, 2021

- Team Case Presentations

WEEK 16- MAY 10, 2021

- Exam 2