



Course Number: DSCI304-06
Production and Operation Management
Fall 2021
College of Charleston

Maryam Mahdikhani
Professor
Zoom meeting by appointment

Tuesday & Thursday 9:25 am - 10:40 am

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Note: * The best way to contact me is via e-mail.

(consider identifying your class DSCI304 on the subject)

- * Instructor reserves the right to change/modify this syllabus as deemed necessary.
- * Students are responsible for keeping themselves informed about any announcements, syllabus adjustments or policy changes made during scheduled classes.

COURSE DESCRIPTION:

WELCOME TO *Production and Operation Management*. This course will provide an opportunity for participants to planning and control of production and service operations with an emphasis on Total Quality Management, demand forecasting, design of production systems, aggregate planning, and inventory management. Additional topics will include just-in-time production, cellular manufacturing, flexible manufacturing systems, robotics, computer-aided design, and manufacturing and quality circles. Students will use appropriate computer software to gain experience with several decision techniques.

PREREQUISITES:

Junior standing; DSCI 232. Prerequisites imply that students can work with standard deviations, z-scores, probability distributions, statistical tests of means and proportions, and regressions before they start taking this class. Failure to comply with these pre-requisites before the start of the course will result in a grade of F. It is the student's responsibility to verify that you have completed all prerequisites.

REQUIRED MATERIALS:

Text and Course Materials: Go to OAKS Content>McGraw-Hill Campus to get access to Connect and the eBook for this class. For questions about McGraw-Hill Registration, watch the following video: <http://video.mhhe.com/watch/YKmmNjAm9iYzrpjALt4DwT?>

Textbook: Operation Management 2th Edition Authors: Cachon

Check OAKS and your official COFC email account regularly.

In addition, you will be bringing your own non-programmable calculator and pencil for exams. Supplemental materials/readings will be posted on OAKS and/or provided in class when necessary.

You should read and study the material covered in the readings before the class in which the material is discussed.

This course addresses the following SB learning goal:

Communication Skills Students will be introduced to contemporary business concepts, terminology (e.g., JIT, MRP, SAP, LSS) and provided an understanding of the differences between various types of business processes. Students will also gain valuable experience in writing and presenting individual and group projects on information technology in the workplace.

Quantitative Fluency Students will gain experience and training on advanced functionality in Microsoft Excel to support information management and decision making.

Global and Civic Responsibility Students will become aware of the current ethical issues associated with corporate use of information and technology, and common corporate policies that address these issues. Also, students will learn about the role of enterprise IT architecture in managing distributed business processes across the global enterprise.

Intellectual Innovation and Creativity After gaining training and exposure to database systems and decision support systems (Excel), both of these systems will then be used to solve structured and unstructured business problems. Also, students will become aware of a variety of emerging technologies, and how companies are/should be leveraging these technologies for competitive advantage.

Synthesis By combining OM and business principles, students will be gain experience integrating knowledge from complementary disciplines and applying this knowledge to the development, evaluation, and improvement of any business process.

This course addresses the following course student learning goals:

- ❖ Understand the historical development of the field of operations management, within the framework of management theory and history.
- ❖ Describe the dimensions of quality and quality management philosophies and terms and apply them to specific situations in businesses.
- ❖ Generate and use quality control charts and capability ratios for production processes.
- ❖ Demonstrate an understanding of the concepts and technologies associated with supply chain management and coordination.
- ❖ Use a variety of quantitative and qualitative forecasting methods.
- ❖ Use basic independent demand inventory models under uncertainty conditions.
- ❖ Describe and perform demand inventory calculations.
- ❖ Understand and apply the theory of the Waiting line.
- ❖ Demonstrate knowledge of information systems that facilitate operational problems, such as e-commerce, customer relationship management, enterprise resource planning, and project management tools.

ELECTRONIC DEVICES:

It is encouraged that you do not bring your cell phone to class. Any other electronic device is optional and not needed to perform the work required of you in class. If a laptop, tablet, or other device is being used, it should only be used for class-related activities.

Why do I state this? Several studies (and my past experience) have shown that students using electronic devices in class spend a great deal of time on non-class-related activities and that these distractions negatively impact both learning and grades (e.g., Ellis, Y., B. Daniels, & j. Andres (2010), *Research In Higher Education Journal* 8(1), pp.1-10). Using electronic devices in class also can hinder instruction and learning, not only for the student using the device but also for other students. Recent studies have supported the fact that non-class-related use of electronic device distracts and impacts the learning of other students nearby (e.g., Fried, C. B. (2008), *Computers & Education* 50(3), pp.906-914; Turner, R. (2011), *VIU Faculty of Education* 2(1), pp.1-39).

If I find that a device is being used for non-class related activities, you may be asked not to bring it with you to class again.

There are Assignments in every class. The honor code is applied here, I trust that you will act like a professional business student and follow these guidelines, as a future ethical business person. No make-ups will be given. No time extensions on assignments or case study, make sure to submit everything on-time or you get a 0.

This class is organized based on face-to-face and online learning:

Rules Specific to In-person and Online Learning

- ✓ Students are expected to participate in all online activities (videos, connect, etc.) The combination of 2 absences (excused or unexcused) will result in the reduction of the final course grade to the next lowest grade (i.e. from B- to C+). This policy is non-negotiable. Do not waste your allowed absences, keep them for when you need them, i.e. sickness, family emergencies, etc.
- ✓ Excessive absences (3 or more days of absence in online assignments), excused or unexcused, will result in the student receiving a WA (an equivalent to an “F”) for the course.
- ✓ It is your responsibility to obtain any missed material from another student or OAKS. Do not email the professor asking what was covered during your absence. You are ultimately responsible for the information given in class, regardless of whether you were physically there. I will not go over missed material in office hours/individual zoom meetings.
- ✓ If one or more students are absent for an extended period of time due to COVID-19 (quarantine or isolation), instructors may, at their discretion, conduct the class exclusively online via OAKS for the duration of student quarantine/isolation, record class lessons to share with students, or choose an alternate accommodation that provides the impacted student(s) with the opportunity to continue in the course. The specific accommodation will vary depending on the number of students affected, the expected duration of their absence, and the needs of the class.

CLASS PARTICIPATION:

Discussions and individual contributions are encouraged, expected, and shall count toward your final performance evaluation (12% of your final grade). There will be a variety of opportunities for class participation during the course. Your participation score will be determined based on the quality/quantity of your participation. To make the most of your

participation, you should read and think about the assigned text and materials before coming to class. Not every class member is expected to have input in every class session, but you should strive to be a regular contributor.

Of course, I expect all of you to conduct yourself in a professional, courteous, and respectful manner. Please be respectful of your fellow classmates — it makes for a positive learning environment. My goal is to create and maintain a learning environment where all students, no matter their experience/knowledge/skill levels, feel comfortable sharing their thoughts and receiving feedbacks and constructive criticism.

SNAP Students/Special Accommodations/Athletes

- The College will make reasonable accommodations for persons with documented disabilities. Students should apply for services at the Center for Disability Services/SNAP located on the first floor of the Lightsey Center, Suite 104. Students approved for SNAP services or athletes are required to present official letters to the professor within the first 2 days of class. Failure to do this means the student waives the right for special accommodations for the remaining of the extended summer.
- No additional time will be given for quizzes. We measure in quizzes the ability of the student to respond within a specific time what is being tested, additional to answering the question correctly.
- For all other tests, the student is required to remind the professor a week before each test so she can make the appropriate accommodations. No additional time is allowed for homework or projects.

Required Technology (MANDATORY AND YOUR RESPONSIBILITY)

- Hardware
- Computer with high-speed internet access.
- Software:
 - CONNECT from McGraw Hill)
 - Microsoft Office. If you have a Mac, you can still use it for everything we do in class, but you will have to learn it on your own if they happen to be different from the Windows version. However, it is highly recommended to use Office 365 that you have free with the CofC account: <https://www.office.com/?auth=2>
 - Adobe Flash Player
 - Adobe Reader
 - Browser

Zoom for online office hours: a link will be provided once you make the appointment (you must make an appointment)

TECHNICAL SUPPORT

- If you have technical problems, please contact the Student Computing Support Desk at 843.953.5457 or email StudentComputingSupport@cofc.edu. Check for computing downloads and tutorials at blogs.cofc/scs/
- Resolve problems promptly. Computer failure/unavailability does not constitute an excuse for not completing assignments by the due date. You must not leave homework/quizzes/exams to the last minute!
- Connect technical support at 1-800-331-5094 or by chat: <http://mpss.mhhe.com/contact.php>
- The professor won't provide any technical assistance on connect or any computer-related problem, you must use either Connect technical support or Student Computer Support Desk.

ATTENDANCE AND PREPARATION POLICY

— I trust you to use your own judgment about your reasons for missing class and whether you can afford to do so. I will deduct one (5) points for every absence beyond 3 missed classes. Use these “free” absences as you like (Covid-19, job interview, personal matters, religious holidays, etc.). You may choose any day for a free absence except a day in which you present or when there is an evaluation activity.

However, if you are absent or has missed any part of the class, then it is YOUR responsibility to obtain the missed information from the instructor or other students.

It is important that you arrive on time (online / Face-to-Face) so that we may start class promptly. Arriving late to class is very disruptive and discourteous to the class. Being late three (3) times will be counted as one (1) absence.

HOMEWORK:

There will be homework assignments. Specifics and due dates will be announced in class and on Blackboard. Most assigned homework will consist of problems from the textbook. Each homework should be electronically submitted to OAKS — Please DO NOT e-mail me your homework submissions. **No late homework submissions will be accepted.**

CLASSWORK:

There will be several classwork for your practices during and after each class. Your classwork and assignments prepare you for the exams, therefore, make sure you understand how to solve the problem and if you faced any problem let me know by sending email.

EXAMINATIONS:

Three (3) exams will be given during the semester. Note that the exams are NOT cumulative.

The exams may consist short answer questions, calculating answers which incorporate all materials covered in lecture class, classwork, homework assignments, and assigned textbook readings.

Seating chart may be randomized on the exam day. You will be tested on all materials covered from lectures and text. Exams will test your ability of solving problems and understanding of concepts. The exams are closed book, however a formula sheet will be provided if it is needed. All books and notes will be placed under desks during exams. All hats are to be removed during exams and placed under desks. All noise making devices should be turned off before the exam begins to avoid distracting others.

I will NOT hold make-up exams unless a student has a very valid reason. In my opinion, there are very few valid reasons for missing an exam.

Examples of acceptable reasons for missing an exam:

- Covid-19 confirmed case (documentation required)
- Unforeseen documented medical emergency (documentation required)
- Official COFC events

Examples of unacceptable reasons for missing an exam:

- Placement interviews
- Social events
- Schedule conflicts with other classes

Students missing a scheduled exam due to the above acceptable reasons must **PREARRANGE** an alternate time to take the exam. Any other missed exams will receive a grade of zero.

Workload and grading

The requirements for the course follow.

Discussion Board Participation	%12
Assignments	%25
Presentation	%10
Exam 1	%15
Exam 2	%18
Exam 3	%18

Grading and Evaluation:0.

Letter Grade			
>94	A	73-75.99	C
90-93.99	A-	70-72.99	C-
86-89.99	B+	66-69.99	D+
83-85.99	B	63-65.99	D
80-82.99	B-	60-62.99	D-
76-79.99	C+	<60	F

IN-CLASS PRESENTATION (This Part may move to online platform due to Covid-19):

In groups of 4-5, students will be expected to introduce a recent article regarding recent topics/issues/news on supply chain management and present his/her thoughts/opinions to the class using MS-PowerPoint. The oral presentations are designed to help you improve your communication

skills and to become more comfortable with public speaking. The time allotted for each presentation will be approximately 14 minutes (consisting of a 10-minute presentation and 4-minute Q&As) depending on the number of students and time available.

SCHEDULE:

The last two weeks of class will be used for presentations. Please plan on presenting on one of the four days. Once you select your presentation date, it is YOUR responsibility to be prepared on that date or find another student to change with you. Only documented illness will be considered a reason to change your presentation date at the last minute.

PRESENTATION FILE SUBMISSION:

Presentation file should be submitted to the designated drop box at Blackboard, and then the instructor will download the files to his laptop for students' convenience (Please DO NOT e-mail me your presentation file submissions). The presentation file submission is **due the evening before your presentation by 23:59:59**. For fair evaluation, each student/team CANNOT change/resubmit their presentation file after the due.

HANDOUT:

A handout containing copies of all slides used in the presentation must be provided to the instructor and the class.

GRADING:

In-class presentation will be graded on the following three (3) criteria: 1) relevance to the course (i.e. application of theories and tools from the classroom to specific industries or companies), 2) interests of the research (i.e. well-known vs. interesting), 3) contribution to other students' learning in this course. Thus, your presentation is STRONGLY recommended to contain your own arguments on the above three grading criteria.

SOURCES:

Potential sources of your presentation topic include (but are not limited to): <http://blogs.anderson.ucla.edu/global-supply-chain/>, <https://operationsroom.wordpress.com/>, <https://aviyer2010.wordpress.com/>, *Wall Street Journal*, *Fortune Magazine*, *Business Week*, *Forbes*, *Economist*, *Barron's*, *Financial Times*, *Harvard Business Review*, *Sloan Management Review*, *California Management Review*, *Supply Chain Quarterly*, *Supply Chain Management Review*, *CPO Agenda*, and/or another business periodical.

College of Charleston Honor Code

- ❖ Lying, cheating attempted cheating, and plagiarism are violations of our Honor Code that, when identified, are investigated. Each incident will be examined to determine the degree of deception involved.
- ❖ Incidents, where the instructor determines the student's actions are related more to a misunderstanding, will be handled by the instructor. A written intervention designed to help prevent the student from repeating the error will be given to the student. The intervention, submitted by form and signed both by the instructor and the student, will be forwarded to the Dean of Students and placed in the student's file.
- ❖ Cases of suspected academic dishonesty will be reported directly by the instructor and/or others knowing about the incident to the Dean of Students. A student found responsible by the Honor

Board for academic dishonesty will receive a XF in the course, indicating failure of the course due to academic dishonesty. This grade will appear on the student's transcript for two years after which the student may petition for the X to be expunged. The student may also be placed on disciplinary probation, suspended (temporary removal) or expelled (permanent removal) from the College by the Honor Board.

- ❖ Students should be aware that unauthorized collaboration--working together without permission--is a form of cheating. Unless the instructor specifies that students can work together on an assignment, quiz, and/or test, no collaboration during the completion of the assignment is permitted. Other forms of cheating include possessing or using an unauthorized study aid (which could include accessing information via a cell phone or computer), copying from others' exams, fabricating data, and giving unauthorized assistance.
- ❖ Research conducted and/or papers written for other classes cannot be used in whole or in part for any assignment in this class without obtaining prior permission from the instructor.
- ❖ Students can find the complete Honor Code and all related processes in the Student Handbook at <http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php>

Miscellaneous Policies:

Although I will try to maintain the class schedule and objectives, I may need to make adjustments. You are responsible to check OAKS schedule for the most recent calendar of activities and dates.

- The professor does not give additional projects to increase students' grades before or after the exam(s). The professor does not round grades; a 59.9 total grade is an F.
- Homework is individual work, and should be completed only by the student taking the course! Students will be able to obtain feedback 1 hour after the due date of the homework. No late homework assignments will be accepted under any circumstances.

WHAT YOU SHOULD KNOW TO SUCCEED IN THIS COURSE:

I am NOT here to try to fail you or to give you a hard time; I am here to educate you and help you ALL succeed in this course.

Attend every class on time and actively participate in discussions.

My goal as a professor is to make this course as enjoyable and beneficial to you as possible. I hope you will leave my course with useful knowledge that will provide you with a new outlook on the business world around you. Thus, **feel free to ask me lots of questions if you are unclear about anything from the lecture, textbook, materials, or in-class discussion. The email subject should start with DSCI 304.**

Start studying for exams early. By studying and reviewing each night you are not only helping to prepare for the exam more effectively, you are also more prepared for class each day and any bonus assignments or quizzes that may be given.

The time to seek help from me is BEFORE, not after, the exams. Do NOT wait until the last week of classes to ask for help. **The earlier you seek help, the better.**

Have a positive attitude. Again, I am here to help you, but you must be willing to help YOURSELF.

Read and be familiar with the syllabus. I have tried to include everything you need to know to succeed in this course. Yes, this is a bit lengthy document but definitely worth it.

The official computer hardware is PC-windows based. If you are a Mac user, you must learn on your own how to use Connect). All videos are using a windows environment.

APPROXIMATE SCHEDULE:

Class schedule can be changed/modified as the semester progresses at the discretion of the instructor, and it is the student's responsibility to keep up with such changes/ modifications that will be announced in class and/or on OKAS. In general, even if the specific date of coverage may change, the order of coverage should remain as presented below.

Week	Date	Topic	Reading
1	August 24 th	Course Introduction/ Introduction to OM	Syllabus/ Chapter 1
	August 26 th	Introduction to processes	Chapter 2
2	August 31 st	Process Analysis	Chapter 3
	September 2 nd		
3	September 7 th	Process Improvement	Chapter 4
	September 9 th		
4	September 14th	Exam 1 Review	
	September 16th	Exam 1	
5	September 21 th	Lean Operation and TPS	Chapter 8
	September 23 th		
6	September 28 th	Quality and Statistical Process Control	Chapter 9, Quality Management
	September 30 th		
7	October 5 th	Introduction to Inventory Management	Chapter 10
	October 7 th		
8	October 12 th	Supply Chain Management	Chapter 11
	October 14 th		
9	October 19th	Exam 2 Review	
	October 21st	Exam 2	
10	October 26 th	Inventory Management with Steady Demand	Chapter 12
	October 28 th		

11	November 2 nd	Inventory Management with Perishable Demand	Chapter 13
	November 4 th		
12	November 9 th	Forecasting	Chapter 15
	November 11 st		
13	November 16 th	New Product Development	Chapter 20
	November 18 th		
14	November 23 th	Thanksgiving	
	November 25 th		
15	November 30 th	Class Presentation	
	December 2 nd	Class Presentation	
16	December 9th	Exam III	

******* The professor reserves the right to make any changes to this calendar. Any changes will be notified with at least 3 days in advance.**