

**SCHOOL OF BUSINESS
RUTGERS UNIVERSITY-CAMDEN
OPERATIONS MANAGEMENT
52:620:325:90**

Spring 2023

Instructor: Dr. Chon-Huat Goh

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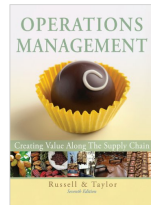
Course Description:

Welcome to the online course in Operations Management! Operations Management (OM) is concerned with the economical use of inputs (labor, capital, and material) in a transformation process which results in goods or services. It involves decision making on how to best design and operate a production system. The term production system includes organizations that manufacture products or offer services (such as hospitals, banks, government agencies, and restaurants). Any organization that transforms inputs into outputs is amenable to good OM principles. In this course, we will emphasize both the quantitative and the managerial aspects of OM problems. The managerial emphasis takes the form of economic analysis of these alternatives, including statements of criteria, information, requirements, and mathematical aids for solutions.

Successful students in this class should be able to:

- 1) **identify problems and recognize opportunities for improving the efficiency and effectiveness** of processes in organizations.
- 2) **structure and solve problems in manufacturing and service** using models and principles commonly found in operations management.
- 3) **apply the OM theories/principles** learned in this class to solve operational issues/problems by being able to effectively communicate the problem, process, and solution to others.

Required Text: **Operations Management: Creating Value along the Supply Chain** by Roberta S. Russell; Bernard W. Taylor. Published by Wiley & Sons, Incorporated, John, 2011. ISBN 13: 9780470525906



Class Materials: Please note that I am using the earlier edition of the textbook for two reasons. The PDF version is offered for free online (also in the **Course Essentials module**) and any additional updated materials will be supplemented in this class during the course. This class is conducted asynchronously via **Canvas**. Use **Google Chrome** to access Canvas and the class materials, as some of the class materials may not be compatible with other Apps such as Safari. You are strongly encouraged to access this course via Canvas at least several times per week.

Class Communication: All class announcements can be accessed via the ‘Announcements’ page in Canvas. Since this is an on-line course, a viable and reliable form of communication is vitally important for successful completion of the class materials. Note that all class communication will be via your **Rutgers e-mail** and **Discussion** page in Canvas. You are **expected** to check your Rutgers e-mail **at least (equally spaced) two or three times every week**. It is also imperative that you ‘Introduce yourself’ (so that I can know you better) and provide your ‘Contact Info’ (in case of any emergency) in your Week 1 lesson plan in Canvas.

E-mail communications:

From Monday until Friday, I will try reply all e-mails *within 24 hours*. Please do *not* expect immediate response. If you do not hear from me within 24 hours, please re-send your e-mail as I may have accidentally overlooked your e-mail. Although I check my e-mails several times a day, I may not have the time to completely answer all e-mails immediately upon receiving them. Note also that I may also be out of town on certain weekends and may not be able respond to weekend e-mails until the following Monday.

Prerequisites: Please note that you **must** have the following pre-requisite/s to enroll in this class: (50:640:113 and 50:960:283) or (50:640:115) OR ((50:640:113 and 50:960:283) or (50:640:121)) OR ((50:640:113 and 52:960:283) or (50:640:130)) OR ((50:640:113 and 52:960:283) or (50:960:183)).

Expectations of Student Participation for Each Week

To be **successful** in the course, it is a **critically important** to complete the following check list in the learning module for each week:

1. **Carefully read** the learning goals and complete all the assignments.
2. **Print out and review** the online Powerpoint (PPT) lecture notes for each session. Note that any **narrated PPT lecture** will **mainly concentrate on the quantitative aspects** of the material.
3. **Carefully read the required and assigned textbook chapter/s and write down additional notes on the printout of the Powerpoint lectures as necessary.**
4. You may also be asked to read/review the required articles/web sites assigned in the online Wall Street Journal or other publications on newsworthy economic events relating to OM.
5. Complete any of the online homework assignment for each session. Note that the assigned textbook homework problems are all **numerical** in nature, are from the **Problem** section (i.e, **not Question** section). It is **imperative** that students work through these problems at the end of each relevant chapter to gain a complete understanding of the course materials. These homework problems are only for practice and will **not** be collected for grading **nor** count towards your final grade.
6. Complete the **ALL** assigned online Mini-Exams as all of these count towards your final course grade. You are allocated a **maximum of 2 hours** once you start taking each Mini-Exam. Note that every student will have a different exam as the questions are taken from a randomized pool of questions. Any student who **did not** take the Mini-Exam will receive a **zero grade** for that exam. There is **no** exception, unless you have a University approved excuse.
7. **Participate** in the **Class Assignments** to get maximum credit for class participation. The Class Assignments are designed for students to discuss personal experiences related to operations management and to be a collaborative learning experience for all involved. Your class participation grade will be evaluated based on the quality and quantity of your discussions. You are also **strongly encouraged** to share any relevant OM topics pertaining to current business environment to further improve your class participation grade. Good sources include the Wall Street Journal and Bloomberg Businessweek.
8. **Self review of Mini-Exam results.** The solutions/feedbacks of the Mini-Exams will be provided on the Wednesdays following the completion deadlines. Students are expected to view their corrected exams and to contact the instructor, if they have any follow up questions.

Chat and Class Assignments: Although ‘Chat’ and Class assignments are good learning tools, oftentimes, a *direct one-to-one professional interaction* to resolve difficult issues is usually the most effective. For example, you may have a certain technical/mathematical problem that you think is difficult be resolved in the “Forums”. In this case, **please feel free to send me an e-mail and a contact number** so that I can call you directly to resolve it.

Academic Integrity

“Academic integrity requires that all academic work be wholly the product of an identified individual or individuals. Joint efforts are only legitimate when the assistance of others is explicitly acknowledged.... The principals of academic integrity entail simple standards of honesty and truth. Each member of the university has a responsibility to uphold the standards of the community and to take action when others violate them.... Students are responsible for knowing what the standards are and for adhering to them. Students should also bring any violations of which they are aware to the attention of their instructors.”¹

Students are expected to know, understand and adhere to the policies on academic integrity outlined above. Procedures for violation of these policies outlined in the University Code of Academic Conduct will be followed.

You are free to discuss any part of the course materials with your classmates. However, you are **not allowed** to discuss (i.e., receive nor give any assistance on) **any part of the Mini-Exams or Case** with anyone, except with the professor. If any **cheating** is found, I will seek the **most severe sanctions available** (i.e., at the minimum, you will received an “F” grade for the course).

Exam Policy: The format and policy for each of the **six** Mini-Exams are as follows:

- 1) Each Exam will be posted by **noon on Friday** of the week of the exam and has to be completed by **midnight, Sunday** of the same week. **E.g., Mini-Exam 1 will be posted by noon on Friday, Jan. 27, 2023 and must be completed by midnight Sunday, Jan. 29, 2023.** Any student who **did not** take the Mini-Exam during this time window will receive a **zero grade**.
- 2) You can take the exam only **once**. Once started, the Mini-Exam must be completed. That is, do **not** log out until you have completely finished the exam. Any unanswered question will automatically receive a zero grade for that question. Make sure you click the ‘Submit’ button after you have completed the Mini-Exam.
- 3) All the Mini-Exams are designed to be completed in one hour or less. However, you are allowed **up to two hours** to complete the exam. You **must start** the taking the exam **by 10 p.m.** on Sunday so that you can use up to 2 hours and complete it by the midnight deadline.
- 4) Any student who **missed the exam**, without prior approval of the instructor or a compelling reason, will receive a **zero grade** for that exam.

Exam Make-Up Policy: Since you are given a very reasonable amount of time to work on the Mini-Exams, make-ups are **very rarely** given. If you cannot take an exam by the scheduled deadline for a university-approved reason, you must give the professor a written notice at least one week in advance so that other arrangements can be made. If the situation does not allow for advance notification (for example, emergency hospitalization), please contact the professor as soon as possible after a missed exam. The professor reserves the right to request a written documentation to support your absence (such as a doctor’s note or military orders).

¹ Rutgers University Code of Academic Conduct, taken from the Student Advising Handbook - <http://camden-sbc.rutgers.edu/CurrentStudents/students/advising.pdf>.

For the **Mini-Case (10% of course grade)**, every student is expected to write up a short report based on his/her analysis and conclusions. Detailed instructions for this case will be provided after the material is covered. The deadline for this case is **midnight March 5, 2023**.

<u>Evaluation Policy:</u>		<u>Grading Policy:</u>		
Class Participation	10%	[90% -	100%]	A
Mini-Exams	80%	[80% -	90%)	B
Mini Case	<u>10%</u>	[70% -	80%)	C
Total	<u>100%</u>	[60 -	70%)	D
		[0% -	60%)	

Etiquette expectations from all on-line students taking this course.

The following protocols on the codes of behavior reflect *professional business norms* on manners, courtesy, and respect. (In general, you should treat others as you would like others to treat yourself. Be mindful that what is acceptable in a text or chatroom with friends may not be appropriate in a classroom or in an online conversation with an instructor.) Even though many of you are already aware of these protocols, they are explicitly stated here so that everyone is cognizant of the *same protocols*. These protocols should be followed by all students to help ensure the online experiences for everyone involved are pleasant. They are as follows:

1. If you were to send an e-mail to the professor or tutor, please address the person appropriately such as “Dr.” or “Mr./Ms.” , not ‘Hey’. Note that I will address you with your first name, unless you prefer that I address you differently.
2. When sending an e-mail, you can get better attention by using the following guidelines:
 - a) use descriptive subject lines, (I am sure you have received a lot of Spam e-mails and I have occasionally and accidentally deleted student e-mails that I thought was Spam.)
 - b) please be as brief as possible by going straight to the point, and
 - c) if possible, limit the use of attachments; provide links, instead of pasting the content.
3. Never send offensive and insulting messages. If you disagree, say so and state your reasons. Social media is a very powerful tool for communication. However, it can be badly misused if it is not used correctly or professionally. For example, you may have personal and legitimate concerns with this course. However, other students, who do not have similar feelings, can be negatively influenced by your concerns. This will unnecessarily and negatively affect their overall experience of the course. Therefore, to minimize such an occurrence, **please feel free to directly contact the instructor first** to resolve any concerns that you may have to help ensure that everyone’s online experience of this course is positive.
4. Always guard against flaming when it comes to content, opinions, etc. That is, avoid blaming or accusing others of wrong doing. Do not start a volley of back and forth e-mails, with copies distributed to every student in the class.
5. Copy the minimum number of people. That is, send e-mails to only the people you think should receive and will benefit from it.
6. Treat all e-mails and postings as permanent forms of written record and do not expect that any your e-mail communications to be private, unless stated otherwise. Instead, assume that all e-mail communications are public. Do not publicize your own or others’ personal information (such as email, phone numbers, last names etc.)
7. Avoid using CAPS, if possible, and never type messages in ALL CAPS as this is considered yelling and seen as a form of aggression.

[Navigating our Classroom and Student Spaces](#) (Note: Rules for coming to Campus)

If you need any assistance on Student Health, please check the **Course Essentials** page.

Listed below are the **tentative** topics to be covered each week. Note that these topics may be subject to change and any changes in topics will be announced via Announcement in Sakai. Do remember to check your Rutgers e-mail regularly and the Announcement page in Sakai for all class communications. **Please note the important deadlines for the Mini-Case and Mini-Exams.**

Week	Topic	Readings	Homework Problems
1/17	Syllabus (Read this Syllabus carefully for Mini-Exam 1)		
	Introduction to Operations Management.	Chapter 1	None
1/23	Decision Analysis	Chapter 1S	1-3 (e: Minimax),1-4
1/29	Mini-Exam 1 Deadline: Syllabus (5%)		
1/30	Quality Management	Chapter 2	2-3, 2-4
	Statistical Process Control	Chapter 3	3-2, 3-6, 3-14, 3-17
2/6	Product Design	Chapter 4	4-6, 4-8, 4-12, 4-13
2/12	Mini-Exam 2 Deadline: Chs 1, 1S, 2 (15%)		
2/13	Service Design	Chapter 5	None
2/20	Processes and Technology	Chapter 6	6-3, 6-4, 6-8, 6-10
2/26	Mini-Exam 3 Deadline: Chs 3, 4, 5 (15%)		
2/27	Facilities	Chapter 7	Handout Q1, Q2
3/5	Mini-Case Deadline (10%)		
3/6	Sales and Operations Planning	Chapter 14	14-28, 14-31, 14-32
3/13	Springbreak		
3/20	Forecasting	Chapter 12	Handout Q1, Q2
3/27	(Cont.) Forecasting	Chapter 12	Handout Q1, Q2
4/2	Mini-Exam 4 Deadline: Chs 6 & 7 (15%)		
4/3	Inventory Management	Chapter 13	13-4, 13-6, 13-20, 13-21
4/10	Inventory Management (cont.)	Chapter 13	13-29, 13-30, 13-31
4/16	Mini-Exam 5 Deadline: Chs 12 & 14 (15%)		
4/17	Supply Chain Management (SCM)	Chapter 10	None
4/24	Scheduling	Chapter 17	17-6 ,17-14, 7-15
5/1	Lean Systems	Chapter 16	None
5/7	Mini-Exam 6 Deadline: Chs 10, 13, 16 & 17 (15%)		