

**OPERATIONS MANAGEMENT (52:620:325:40: 19439)**

Term: Spring 2018

Instructor: Dr. Mamnoon Jamil

Class Room: BSB 335

Class: Mondays 6:00 PM – 8:50 PM from 01/16/2018 to 05/09/2018

Website: <http://crab.rutgers.edu/~mamnoon/>

Office Hours: Before or after the class

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**Course Description and Objectives:**

In order to compete successfully, organizations must not only provide goods and services at the quantity that consumers need and want but also at a price that they can afford and are willing to pay. Therefore, all organizations must continually evaluate the performance of their operations and make necessary improvements in order to maximize the utilization of all their resources in order for them to achieve this goal. Operations Management (OM) is concerned with the economical and efficient use of resources such as human, capital, and material in a transformation process that results in goods or services. It involves decision making on how to *best design and operate* a production system. The term "production system" includes all organizations that manufacture products (such as cars) or offer services (such as healthcare, banking, and entertainment). Any organization that transforms inputs into outputs is amenable to OM concepts. This course will emphasize both the technical and managerial aspects of Operations Management. Therefore, it is imperative that OM students have a firm foundation in OM principles in order to successfully perform economic analysis of various alternatives available to the organization and suggest operational improvements and/or breakthroughs. This economic analysis includes the statements of criteria and requirements, and uses information/data and mathematical aids for solutions.

In addition to understanding the fundamental concepts of OM, 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 OM models. This may involve running and interpreting computer solutions to OM problems.
- 3) Effectively communicate the problem, process, and solution to others.

**Required Textbook:** Operations Management: Processes and Supply Chains, Eleventh Edition, Krajewski, Malhotra, and Ritzman, ISBN-13: 978-0-13-387213-2, Prentice Hall (Pearson), 2016.

**Prerequisites:** Prerequisites: 52:620:321 and 50:960:284 or 52:620:216. Specially, if you have not taken the Statistics course, you must notify the instructor immediately after the first-class meeting.

**Teaching Methodology:** The required textbook and additional reading materials provide the essential backbone of the course. Rather than spending limited class time repeating textbook material, much of the class time will be devoted to activities that flesh out the material presented in the text and other sources. For this teaching approach to work, it is necessary that you read all assigned material *before* coming to that class. Note that although the professor will only cover the major points in the PowerPoint materials in class, students must fully understand all the PowerPoint materials to excel in the examinations. Please consult with the professor **immediately** whenever you need help.

**Syllabus updates and other course communication:** All updates and changes to the syllabus, and other important communications will be communicated in class. If you anticipate being absent from class, please inform the professor and find a classmate who can pick up any class handouts, if any.

### **COURSE REQUIREMENTS:**

- 1. CLASS PARTICIPATION:** It is expected that you attend class regularly, ask questions, and contribute to class discussions by sharing personal OM-related experiences and/or articles related to OM issues. You are also encouraged to share any relevant OM-related events, success stories and failures from business magazines or personal experiences with the class.
- 2. EXAMINATIONS:** There will be two non-cumulative exams that are designed to test your understanding of the facts and concepts of the course. For each exam, students are allowed to bring one letter size page (8.5" x 11") of handwritten notes (front and back). Calculators will be required for all exams. The exam dates, grading and other aspects of grading will be covered below. No smart phone will be allowed as a calculator.

### **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 principles 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.”<sup>1</sup>

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.

**Exam Make-Up Policy:** If, for a university-approved reason, you cannot take an exam at the scheduled time you must give the professor written notice in advance so that other

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

arrangement can be made. If the situation does not allow for advance notification (for example, emergency hospitalization), contact the professor as soon as possible after a missed exam. **Any student who missed the exam without prior approval of the instructor or a compelling reason will receive a zero grade for that exam.** The professor reserves the right to request written documentation to support your absence (such as a doctor's note or military orders).

**3. CASE REPORT / PRESENTATION:** The class will be divided into groups of 3 students. Each of these groups will select a case from the list of the Harvard Business School cases (enclosed at the end), and will be responsible for working on analyzing the case. Each student may need to purchase the case from the Harvard Business School Press. Each group will submit both soft and hard copies of the case presentation and case report. The case presentation & report are due at the beginning of the class. The group should present (or summarize) the case in 30 minutes. Overall, the case report / presentation will be evaluated on the following dimensions: (a) Case synopsis, (b) Accurate and direct answers to the questions / issues in the case, (c) Ability to involve the rest of the class in the case discussion, (d) Ability to respond to questions. Note that there will be **peer evaluations of every member** in each group at the end of the semester to enable the professor to properly assess every student's participation and contribution in the case presentation / report.

**4. HOMEWORK:** Homework problems from relevant chapters will be assigned after the topics are taught. Homework will be collected (on the next class after the material is covered) to make sure that all problems have been attempted at a minimum. To gain a more thorough understanding of the lecture material, it is imperative that students work through problems at the end of each relevant chapter in addition to the assigned homework problems.

**5. EVALUATION POLICY:**

Class Participation*	10%	<b><u>Grading Policy:</u></b>	
Exam 1	35%	[90% - 100%]	A
Exam 2	35%	[85% - 90%)	B+
Case Report / Presentation	20%	[80% - 85%)	B
Total	100%	[73% - 80%)	C+
		[65% - 73%)	C
		[0% - 65%)	F

\* Note that class participation includes your class attendance as well as your contribution to the class and homework submission.

This course requires a strong commitment of your time and effort, both inside and outside of the classroom. A key component to your successful completion of this class is to keep up with the material.

**Cell Phones:** Students are required to *turn off* their cell phones while they are in class, unless there is an emergency.

Listed below are the **tentative** topics to be covered for each class. Although the Exams dates are fixed, there may be occasional updates/changes on the topics to be covered.

<b>Day</b>	<b>Topic</b>	<b>Readings (HW)</b>
01/16/18	Introduction to Operations Management: Using Operations to Create Value (HW Problems: 2, 4, 8)	Chapter 1
01/23/18	Decision Making (HW Problems: 1, 10, 14, 16, 24)	Supplement A
01/30/18	Forecasting	Chapter 8
02/06/18	Forecasting (continued ...) (HW Problems: 1, 2, 3, 6, 9, 16)	
02/13/18	Process Strategy and Analysis (HW Problems: 2, 17, 23, 25)	Chapter 2
02/20/18	Review Sample Questions Inventory Management	Chapter 9
<b>02/27/18</b>	<b>Exam 1 (Chapters 1, 2, 8, and Supplement A)</b>	
03/06/18	Exam Review Inventory Management (continued...) (HW Problems: 10, 12, 15, 17, 21, 31)	Chapter 9
03/20/18	Quality and Performance	Chapter 3
03/27/18	Quality and Performance (continued...) (HW Problems: 3, 12, 13, 19, 25)	
04/03/18	Capacity Planning	Chapter 4
04/10/18	Capacity Planning (continued...) (HW Problems: 3, 8, 9)	
04/17/18	Review Sample Questions Case Report / Presentation	
04/24/18	Case Report / Presentation	
<b>05/08/18</b>	<b>Exam 2 (Chapters 3, 4 and 9)</b>	

### **Harvard Business School Cases (purchase online from HBS):**

The course uses the following Harvard Business School cases:

1. Domino's Pizza, Product #: 512004-PDF-ENG
2. Eight Inc. and Apple Retail Stores, Product #: IN1384-PDF-ENG
3. Honda Canada (A): Tsunami and Communications, Product #: W16152-PDF-ENG
4. L'Oreal's ACD Supply Chain Puzzle: Diagnosing the Root Causes of Underperformance, Product #: IMD883-PDF-ENG
5. Managing with Analytics at Procter & Gamble, Product #: 613045-PDF-ENG
6. New Balance Athletic Shoe, Inc., Product #: 606094-PDF-ENG
7. Pharmacy Service Improvement at CVS (A), Product #: 606015-PDF-ENG
8. The Walt Disney Company: Mickey Mouse Visits Shanghai, Product #: UV7197-PDF-ENG
9. Toyota Motor Manufacturing, U.S.A., Inc. Product #: 693019-PDF-ENG

All of the above material can be purchased online from the Harvard Business School Cases / Articles company website:

<http://cb.hbsp.harvard.edu/cbmp/access/74372781>

### **Notes**

1. The material and chapters listed above may be modified during the session to best suit the needs and pace of the class.
2. It is very important that the prescribed reading and homework problems be done prior to the next class. These in-class exercises are supposed to give you good practice. Class attendance and completing the assigned readings and homework problems are of key importance to success in this class.
3. The examination dates are provided for planning purposes. These dates may be changed depending on the course progress.

4. If you have questions during the weekdays, email is the best way to get in touch with me. I usually respond within few hours during the weekdays via email.