

RUTGERS UNIVERSITY
SCHOOL OF BUSINESS-CAMDEN
OPERATIONS MANAGEMENT
53:716:513-M1 (16686)

Fall 2010

Dr. Chon-Huat Goh

Class: Th. 6:00 p.m. - 8:40 p.m.

Classroom: PHH MORTGAGE CO., BLDG 1

Office Hours: T, Th 1:30-3:00 p.m.

Or by appt. (if before class at PHH)

E-mail: cgoh@camden.rutgers.edu

Office: BSB 436

Telephone: 856-225-6650

Course Description:

In order to compete successfully, organizations must not only provide goods and services at the quality that consumers need and want but also at a price that they can afford and 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 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 organizations that manufacture products 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 the technical and managerial aspects of OM problems. The managerial emphasis takes the form of economic analysis of various alternatives. This analysis includes the statements of criteria, information/data, requirements, 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 models commonly found in operations management. This may involve running and interpreting computer solutions to operations management problems.
- 3) Effectively communicate the problem, process, and solution to others.

Required Textbook:

R. Dan Reid and Nada R. Sanders, *Operations Management*, 4th edition: Wiley, 2010, ISBN 978-0-470-32504-9.

Class Materials: Can be obtained via internet, <http://crab.rutgers.edu/~cgoh/MAN513>

Prerequisites: 135-502 (Quantitative Tools). **If you have not taken this course you must notify the instructor immediately after the first class meeting.**

Teaching Methodology: The material presented in the textbook provides the essential backbone of the course. However, 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. **For this teaching approach to work, it is necessary that you read all assigned textbook material *before* coming to that class.** In addition, doing all homework exercises on-time, consulting with the professor immediately when you need help, **regular attendance, punctuality, and class participation** are strongly recommended actions for the student to excel in this course.

Syllabus updates and other course communication: All updates and changes to the syllabus, and other important communications will be communicated in class and/or via e-mail. Please remember to check your Rutgers e-mail account. If you anticipate being absent from class, find a classmate who can pick up any handouts, if any, and other course materials for you, as you are responsible for keeping up with this course.

COURSE REQUIREMENTS:

- 1. CLASS PARTICIPATION:** It is expected that you will (i) arrive on time and attend class regularly, (ii) listen and ask questions, if any, in class, and (3) contribute to class discussions by sharing personal experiences and/or articles related to OM issues. All students are allowed an unexcused absence of **one class**; after that, a point of the final grade will be deducted for every class that you miss. You are strongly encouraged to see the instructor whenever they have any questions pertaining to the class.
- 2. EXAMS:** There will be two exams that are designed to test your complete understanding of the facts and concepts of the course. Exam dates, grading and other aspects of grading will be covered below. During the class before each exam, there will be a short in-class review of the topics to be covered in the exam. For each examination, students are allowed to bring one letter-size page of **handwritten or typewritten** notes (front and back) with his/her name on the top right hand corner.

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.”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.

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 arrangements 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

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

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 PRESENTATION, REPORT AND PARTICIPATION:** There will be 4 assigned cases. The class will be divided into 8 groups where 2 groups will analyze, present and turn in one case. The class will elect the class representative who is responsible of letting the instructor know all the participants of the assigned cases. **Before you work on the cases, please carefully read the handout on "How to Analyze a Case."** Individual groups are **not** allowed to discuss the case with other groups before the case presentation. The case report **should be neatly typed** and it is due at the beginning of the class presentation day. **No late case report will be accepted.** While one group is presenting the case, the other groups must prepare and submit questions/comments for the case to the instructor.
4. **HOMEWORK:** Homework problems will be assigned at the end of each class. At the beginning of each class, only a random number of these assigned homework problems will be collected for grading. The lowest homework grade will be dropped in the calculation of the final grade. *There will be no credit given for late homework assignments.* 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*	15%
Examination 1	25%
Examination 2	30%
Case Presentation & Report	20%
Homework Problems	<u>10%</u>
Total	<u>100%</u>

* Note that class participation includes your class attendance and your contribution to the class and case discussions.

Grading Policy:

[90% - 100%]	A
[80% - 90%)	B
[70% - 80%)	C
[0% - 70%)	F

This course requires a strong commitment of your time and effort, both inside and outside of the classroom. You are expected to attend each class and to complete all assigned work. 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. **However, the exam dates are fixed.** Note that there may be occasional updates on the topics to be covered.

Day	Topic	Readings	Homework
9/2	Introduction to Operations Management	Chapter 1	
9/9	Operations Strategy and Competitiveness Class Discussion: Factories grapple with how fast to ramp up.	Chapter 2	
9/16	Product Design and Process Selection Class Discussion: Buick Product Design	Chapter 3	8, 10, 11
9/23	Total Quality Management Statistical Quality Control Class Discussion: Toyota Management	Chapter 5 Chapter 6	6, 8, 10 2, 8, 9, 11, 12
9/30	Forecasting	Chapter 8	Handout
10/7	Forecasting (Cont.) Case 1: Bram-Wear (pp. 310-311) (Due:10/28) & Case 2: The ER at Northwest General (A), (pp. 311-312) (Due:10/28) Supply Chain Management	Chapter 8 Chapter 4	4, 6
10/14	Supply Chain Management (Cont) Class Discussion: Electronic Pocket Calendars (pp. 144-6) Exam 1 Review		
10/21	Exam 1 Facility Layout Case 3: Sawhill Athletic Club (A) & (B) (pp. 388-9) (Due: 11/18)	Chapter 10	Handout
10/28	Facility Layout (Cont.) Cases 1 and 2 Presentations	Chapter 10	Handout
11/4	Scheduling Case 4: Air Traffic Controller School (pp. 586-587) (Due: 12/2)	Chapter 15	5, 6, 8, 10, 12
11/11	Capacity Planning and Facility Location Case 5: Data Tech, Inc. (p. 351) (Due 12/9)	Chapter 9	10, 12
11/18	Independent Demand Inventory Management Case 3 Presentation	Chapter 12	11,23,18,22,30
11/25	Thanksgiving Holiday		
12/2	JIT and Lean Systems Class Discussion: Factory Efficiency Comes to the Hospital Case 4 Presentation	Chapter 7	
12/9	Aggregate Planning Case 5: Presentation Exam 2 Review	Chapter 13	1-6
12/16	Exam 2 (6:00 p.m. – 8:00 p.m.)		