

# MGMT 3600 OPERATIONS MANGEMENT

## Spring 2009

Location and Time: UHB 200 MWF 9:00-9:50 am

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Office Hours: UHB 337 M 10:00 - 12:00 pm

Text: Heizer, Jay & Barry Render, (2008). Operations Management, 9th Edition. Upper Saddle River; Prentice Hall. ISBN 978-0-13-234271-1

Course Description: Operations Management focuses on the management of processes and resources used in the creation of products and services within an organization. The course covers optimization of scarce resources, facility location, plant layout, production planning, and operational processes. There is an emphasis on product/service development, forecasting, inventory control, and quality assurance techniques. Prerequisites: STAT 2040 & MATH 1100.

### Course Objectives:

The objective of this course is to provide students with a fundamental knowledge of operations management in a global environment and to prepare them to meet the demands of operating a real business. Students will develop the ability to use quantitative and problem-solving tools in making decisions involving planning, coordinating, and executing of activities that create goods and services. Concepts and tools include strategic planning, decision theory, statistical process control, forecasting, inventory management, scheduling, queuing theory, and design quality. Students will also develop their oral and written communication skills. By the end of the course, students should be able to:

1. Produce an assembly chart and precedence diagram for the management of a project.
2. Demonstrate competence in the use of each of the following analytical techniques: statistical process control charts, quantitative sales forecasts, independent demand inventory models, aggregate planning, material requirements planning and queuing models.
3. Use the computer to solve selected operations management problems.
4. Demonstrate an awareness of the principles of location and layout strategies, quality management, and strategic planning.
5. Effectively express what they have learned, both in oral and written form.

## **Grading and Course Content:**

Grades will be based on the following:

Discussion	5%
Homework Assignments	20%
Group Presentation and Report	15%
Midterm Exams (2)	40%
<u>Final</u>	<u>20%</u>
Total	100%

**DISCUSSION:** In class discussion and exercises will be used to clarify and exemplify concepts that are presented in the text reading assignment. Students are expected to have read the assignment and to have come to class prepared with individual examples, insights or further questions to spur active discussion.

**HOMEWORK ASSIGNMENTS:** Homework assignments will be turned in at the beginning of class on the date due. No late assignments will be accepted. Only assignments turned in during class will be accepted. Students may collaborate on homework assignments, but remember that your performance on the midterms and final examination will require you to understand and practice the homework problems.

**GROUP PRESENTATION AND REPORT:** The class will be divided into groups for a group project. Oral group presentations are scheduled near the end of the term, but will emphasize different aspects of operations management. Projects will be assigned randomly, but groups may choose to negotiate with each other and trade assignments if mutually beneficial. The instructor must receive written notification signed by ALL group members if a change in assignment is negotiated.

**MIDTERM EXAMS:** Two midterm exams are scheduled. Each of these will cover specified text chapters and quantitative modules. No make up exams will be given.

**FINAL:** The final will NOT be comprehensive. It will cover the material in the last third of the course. The Final will be Wednesday, April 29th at 10:00 am.

## **Boilerplate:**

**BEHAVIOR:** My expectation is that you are all adults. Please don't disappoint me. Be on time to class, as we will start on time, and finish on time. Turn off or silence cell phones. Pay attention in class. If you use a computer to take notes that is fine. If you use it to surf the net, that is not fine. Please be considerate of others. We will be having only one conversation at a time, and expecting everyone's participation. If you have trouble paying attention, please sit toward the front of the room. If you are distracting or disturbing to the class you will be asked to leave. In general I will do everything I can to make the class interesting and exciting, and anything that detracts from the learning experience will not be tolerated.

**REBELMAIL:** Important class and college information will be sent to your Rebelmail email account. This information includes your DSC bill, financial aid/scholarship notices, notification of dropped classes, reminders of important dates and events, and other information critical to your success in this class and at DSC. All DSC students are automatically assigned a Rebelmail email account. If you don't know your user name and password, go to [www.dixie.edu](http://www.dixie.edu) and select "Rebelmail," for complete instructions. You will be held responsible for information sent to your Rebelmail email, so please check it often.

**CHEATING:** Cheating will not be tolerated. Cheating includes all forms of academic dishonesty, **including allowing another person to copy your work**. Cheaters will be disciplined according to school policy.

**ATTENDENCE:** Students are expected to attend every class session and are responsible for material covered and announcements, whether they are in class or not.

**ADA DISCLAIMER:** Proper documentation of a disability is required in order to receive services or accommodations. Any student eligible for and requesting reasonable academic accommodations due to a disability must provide a letter of accommodation to their professor from the Disability Resource Center within the first two weeks of the beginning of classes. Please contact the Center on the main campus to follow through with the documentation process. They are located in the Student Services Center, Room #201, or you may call for an appointment and further information regarding the Americans with Disabilities Act (ADA) at 652-7516.

**GENERAL DISCLAIMER:** Information contained in this syllabus, other than the grading criteria, may be subject to change with advance notice, during class time, as deemed appropriate by the instructor.

**Schedule:**

<b>Date</b>	<b>Subject</b>	<b>Reading Due</b>	<b>Assignment Due</b>
Jan 5	Introductions, Syllabus, Overview		
Jan 7	Operations and Productivity	Chapter 1	
Jan 9	Operations Strategy in a Global Environment	Chapter 2	1.1, 1.9, 1.17
Jan 12	Decision Making Tools	Module A	
Jan 14	Decision Making Tools		
Jan 16	Project Management	Chapter 3	A.1, A.9, A.17
Jan 19	NO CLASS HOLIDAY		
Jan 21	Project Management		
Jan 23	Linear Programming	Module B	3.3, 3.17, 3.25
Jan 26	Linear Programming		
Jan 28	Transportation Models	Module C	B.5, B.9, B.29
Jan 30	Transportation Models		
Feb 2	Forecasting	Chapter 4	C.1, C.5, C.13
Feb 4	Forecasting		
Feb 6	Design of Goods and Services	Chapter 5	4.5, 4.19, 4.31
Feb 9	Managing Quality	Chapter 6	5.3, 5.9, 5.18
Feb 11	Midterm 1 (Chap 1-4, Mod A, B, C)		
Feb 13	Statistical Process Control	Chapter 6 Supplement	
Feb 16	NO CLASS HOLIDAY		
Feb 18	Waiting-Line Models	Module D	S6.7, S6.25, S6.29
Feb 20	Waiting-Line Models		
Feb 23	Process Strategy	Chapter 7	D.7, D.15, D.19
Feb 25	Capacity Planning	Chapter 7 Supplement	
Feb 27	Learning Curves	Module E	S7.22, S7.27, S7.33
Mar 2	Location Strategies	Chapter 8	E.5, E.21, E.25
Mar 4	Layout Strategies	Module 9	8.5, 8.19, 8.21
Mar 6	Layout Strategies		
Mar 9	Human Resources and Job Design	Chapter 10	9.5, 9.11, 9.19
Mar 11	Work Measurement	Chapter 10 Supplement	
Mar 13	Midterm 2 (Chap 5-10, Mod D, E)		S10.5, S10.19, S10.27
Mar 16, 18, 20	NO CLASS SPRING BREAK		
Mar 23	Supply Chain Management	Chapter 11	
Mar 25	Outsourcing as a Supply Chain Strategy	Chapter 11 Supplement	
Mar 27	Inventory Management	Chapter 12	11.11, S11.7, S11.9

<b>Date</b>	<b>Subject</b>	<b>Reading Due</b>	<b>Assignment Due</b>
Mar 30	Inventory Management		
Apr 1	Simulation	Module F	12.9, 12.27, 12.37
Apr 3	Aggregate Planning	Chapter 13	F.5, F.11, F.19
Apr 5	Material Requirements Planning (MRP) and ERP	Chapter 14	13.7, 13.19, 13.22
Apr 8	Short-Term Scheduling	Chapter 15	14.3, 14.5, 14.23
Apr 10	Short-Term Scheduling		15.7, 15.13, 15.19
Apr 12	Maintenance and Reliability	Chapter 17	
Apr 15	JIT and Lean Operations	Chapter 16	17.9, 17.17, 17.19
Apr 17	Student Group Presentations		
Apr 19	Student Group Presentations		
Apr 22	Course Review		
Apr 29	FINAL - 10:00 AM		