

WILLIAM PATERSON UNIVERSITY
CHRISTOS M. COTSAKOS COLLEGE OF BUSINESS
Course Syllabus

Course Number & Title: MGT4310 – Production and Operations Management
Semester: Winter 2015/16
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COURSE DESCRIPTION

This is the introductory course in Production and Operations Management. It surveys the major topics and issues in the management of the production function of a business enterprise. Specifically, it provides a fundamental understanding of solving the management issues that personnel deal with operations of manufacturing and service oriented firms. Topics to be covered in the course include but are not limited to: Operations Functions, Quality Management, Quality Control, Process Strategy, Service Operations Design, Forecasting, Supply chain management, Layout Strategy, Capacity planning, Inventory Management, and Quantitative models such as linear programming, waiting line models and Project Management.

COURSE OBJECTIVES

- Develop a basic knowledge and understanding of basic Production & Operations Management (POM) concepts and their applications
- Explain how a firm's operations function is managed
- Introduce a number of Operations Management tools that can be applied in job settings
- Enhance skills needed to solve complex, real- business problems in Production and Operations Management

COURSE PREREQUISITES

MGT 200, MATH 140, MATH 145, and ECON 210

COURSE MATERIALS

1. Heizer, J. and Render, B. (2011). Operations Management, 11th. Edition. (Required)
ISBN-10: 013-292114-6; ISBN-13: 978-0-13-292114-5 (Please make sure that your book has Module section at the end)
2. Scientific Calculator (Required for selected topics)
3. Lecture Notes, Powerpoints, and additional readings will be available on Blackboard. Please visit the site every other day.

STUDENT LEARNING OUTCOMES

After the completion of the course, students will be able to:

- 1) Introduction to the course, Operations and Productivity
 - a) Define operations management and productivity measures
- 2) Operations Strategy and Competitiveness
 - a) Define OM's role in business and relationship to strategy development, and identify competitive priorities for Operations function
- 3) Project Management
 - a) Describe project management objectives, the project life cycle
 - b) Diagram networks of project activities, estimate the completion time of a project, and compute the probability of completing a project by a specific time.
- 4) Forecasting
 - a) Identify principles of forecasting, types of forecasting methods and their characteristics
 - b) Use various methods of forecasting and compute forecast accuracy
- 5) Design of Goods & services & Process Strategies
 - a) Define product design and its strategic impact on organization
 - b) Using break-even analysis as a tool in selecting between product alternatives
 - c) Describe and use techniques for decision making
- 6) Managing Quality
 - a) Explain the meaning of Total Quality Management (TQM) and identify features of the philosophy and tools used for solving quality problems
- 7) Statistical Process Control
 - a) Describe categories of Statistical Quality Control and use statistical tools in measuring quality characteristics
 - b) Identify the differences between various control charts and describe the usage
 - c) Explain acceptance sampling and the use of OC curves
- 8) Capacity Planning and Facility Location
 - a) Describe relationship between capacity planning and location
 - b) Describe the decision support tools used for capacity planning and location analysis
 - c) Identify key factors in location analysis and solve problems
- 9) Facility Layout
 - a) Identify and describe different types of layouts and solve problems
- 10) Supply Chain Management
 - a) Explain the strategic importance of supply chain management
 - b) Identify the six supply chain strategies
 - c) Explain the issues and opportunities in supply chain management
- 11) Inventory Management
 - a) Describe the objectives of inventory management, different models and use of inventory, and calculate inventory
- 12) Linear Programming
 - a) Formulate Linear Programming Problems
 - b) Graphical Solution to a Linear Programming Problem.
- 13) Simulation
 - a) Explain the merits and demerits of simulation
 - b) Apply the steps of Monte Carlo simulation to practical applications

COURSE FORMAT

This course will be delivered on-line via Blackboard. On Blackboard, you will find folders corresponding to each week of this course. In general, each folder will contain the week's plan, chapter overviews (PowerPoint notes), additional readings (if any), a quiz, and a web exercise. I will post the folder for the week on Monday morning so you will have a full week (Monday through Sunday) to work on the assigned content. After reading the book chapters and reviewing the chapter overviews, you will continue your learning through completion of quizzes and exercises. **Reading your text will be critical** as this course does not involve lectures or oral explanations. I suggest you read the book chapters in advance so you can start completing assignments and quizzes as soon as they are posted. Please refer to the course schedule below for assigned readings.

The course is designed so that you can access chapter overviews, quizzes, and web exercises at a time that is convenient for you. However, all quizzes and web exercises must be submitted by the specific deadline indicated below. You will not be able to submit quizzes or web exercises past the deadline as they will be locked promptly right after the deadline.

COURSE COMMUNICATION

Class Announcements and General Questions

The primary mode of communication for this course will be the *Class Discussion Board* on Blackboard. I will post important announcements and answer questions through this board. You are strongly encouraged to ask questions about concepts, theories, assessments, and the course in general. Many of your questions about the course will be of interest to others. By using the discussion board, everyone can benefit from answers to your questions. You may even find that a question you have – and the answer – is already posted on the board so you will have an immediate answer. I will respond to questions posted on the board within 24 hours. Please **check the Class Discussion Board regularly** for important information about this course.

Email Communication

If you have a question or situation that requires a private discussion please email me through the **Blackboard email system**. Using Blackboard email, instead of regular email, ensures that you get a reply within 24 hours, and it avoids your message and my reply going to spam or getting 'lost' in the clutter. If you email with a question that is not private, I will ask you to use the Class Discussion Board to ask your question. Please use the discussion board whenever appropriate to prevent a delayed response. Private matters that should be handled through email include grade clarification, and the like. Examples of non-private questions that should be asked through the discussion board include concept clarification (e.g. could you please clarify the concept of critical path?), technical difficulties (e.g. I'm having trouble accessing the article for the assignment...), and other related issues.

Email Etiquette

As future business professionals, you should be aware of the importance of professional email communication. As such, all the emails you send me during the course should meet the basic email etiquette requirements. That is, your **emails should include** an appropriate subject line, a greeting, a closing line, and your full name. If you send me an email that does not meet these requirements, I will have to ask you to re-send it in the proper format. Again, please ensure your emails meet the requirements to avoid delayed responses.

ASSIGNMENT SUBMISSIONS

Assignments should be submitted through Blackboard. Submission through Blackboard will automatically save your assignments in the system. Submissions by email will generally NOT be accepted. However, should there be a circumstance where you need to submit an assignment via email (e.g. the system is down), ALL emails of class files that are sent to me NEED to be SAVED. This will help you in the rare case that an email is lost, as the date on the original sent email can be referred to. There will be absolutely no exceptions in the case of emails lost if you cannot produce the original sent email. But please make a rule of submitting assignments through Blackboard.

COURSE REQUIREMENTS

Weekly Quizzes (40 points each)

On-line quizzes are designed to allow you to review and assess your familiarity with key terms and concepts covered in the assigned readings. The quizzes consist of multiple choice questions and are based on each week's assigned readings. These quizzes are open book and not timed. You will have one chance to take each quiz prior to the time it closes. You'll find links to quizzes in each Week's Folder. Your quiz grade will appear in "My Grades" tab in Blackboard immediately. It is strongly recommended that you check your grades after taking each quiz to confirm it successfully posted.

Web Exercises (80 points each)

Web exercises are designed to assess your understanding of concepts and theories, and your ability to include the material learned into a coherent analysis of several operations situations. Web exercises will generally ask you to formulate the problem, provide a solution to the problem, and interpret the results (e.g. make suggestions to the business/manager). Your answers should reflect your understanding of the assigned readings for the current week; make sure to mention and explain relevant concepts learned for a **complete answer**. You will find the requirements for each Web Exercise inside the corresponding week's folder.

There will be a submission area for each Web Exercise in the respective Week's folder. However, I strongly encourage you to type and save your answers on a Word document first, and then copying and pasting your answers into the submission area. This will avoid that technical difficulties prevent you from submitting your assignment (e.g. the system timing out while you are thinking about your answer). After submitting your answers, please ensure that they were submitted successfully by reviewing your submission status in the respective area.

Midterm and Final Exams (200 points)

There will be two midterm exams and a final. Each exam will be based on the material learned in the corresponding unit (see class schedule). That is, midterm Exam 1 will be based on chapters from Unit 1, and midterm Exam 2 will be based on materials from Unit 2, and the Final Exam will be based on chapters from Unit 3. All three exams will consist of a combination of multiple choice, short answer questions, and calculation problems. More details regarding the exams' format will be provided to you the week before each test.

All Exams will be administered on-line through Blackboard, a link to the test will be provided on the respective week's Folder. All exams are open book; you may refer to your book and other course materials during the test. Please keep in mind that these are individual exams (i.e., it is intended to reflect your understanding, and is not to be completed working with others). William Paterson University's cheating and plagiarism policies apply to the test and the course in general.

The exams will be available for you to take at any time during the week designated in the schedule. However, you will only have two hours to complete each exam. After two hours the test will close and you won't be able to answer any other questions. Make sure you have a good grasp on the material covered before you start taking each test as you will not have enough time to look up every single answer. Also, make sure you won't have any interruptions during those two hours.

Please, be aware that you only have ONE chance to complete each exam, so please DO NOT start the test if you don't intend to finish it. If you open the test just to see what's in it and try to come back to it later, it WILL NOT WORK and you will get a zero on the exam, NO EXCEPTIONS. Missed exams without a valid documented excuse, spanning the period during which the exam was open, will be given a grade of zero. Please see below for more information on valid excuses.

Grades will be determined based on the following tables:

Practice Test	40 points	4%
Quizzes (x3)	120 points	12%
Web Exercise (x3)	240 points	24%
Exams (x3)	600 points	60%
Total	1000 points	

Total Points	Grade	Percentage
930 – 1000	A	93-100%
900 – 929	A-	90-92%
870 – 899	B+	87-89%
830 – 869	B	83-86%
800 – 829	B-	80-82%
770 – 799	C+	77-79%
730 – 769	C	73-76%
700 – 729	C-	70-72%
670 – 699	D+	67-69%
600 – 669	D	60-66%
0 – 599	F	<60%

ONLINE ETIQUETTE / NETIQUETTE

Taking an online course and corresponding via the World Wide Web presents communicators with the task of overcoming the lack of nonverbals in communication. When taking a course online, it is important to remember several points of etiquette that will smooth communication between the students and their instructors.

1. Avoid language that may come across as strong or offensive. Language can be easily misinterpreted in written communication. If a point must be stressed, review the statement to make sure that an outsider reading it would not be offended; then post the statement. Humor and sarcasm may easily be misinterpreted as well, so try to be as matter-of-fact and professional as possible.
2. An online classroom is still a classroom. Though the courses may be online, appropriate classroom behavior is still mandatory. Respect for fellow classmates and the instructor is as important as ever.
3. Though still a fairly young type of communication, certain aspects of communication on the internet are becoming conventional. For example, do not write using all capital letters, because it will appear as SHOUTING. Also, the use of emoticons can be helpful when used to convey nonverbal feelings—example :-) or :-(, but avoid overusing them.
4. Consider the privacy of others. Ask permission prior to giving out a classmate's email address or other information.
5. No inappropriate material. Do not forward virus warnings, chain letters, jokes, etc. to classmates or instructors. The sharing of pornographic material is forbidden.

THE FOLLOWING POLICIES APPLY TO ALL STUDENTS IN THIS COURSE

- A. Prerequisite:** Students attending the course who do not have the proper prerequisite risk being deregistered from the class.
- B. Enrollment:** Students have responsibility to ensure they are properly enrolled in classes. You are advised to review your official class schedule once semester starts to ensure you are properly enrolled in this class and section.
- C. Student Concerns:** Feel free to email the instructor should you have any concerns, comments or issues related to coursework. The Professor is quite understanding and appreciative of problems.
- D. Academic Honesty:** Any student who cheats automatically fails the course. Cheating means to misrepresent the source, nature, or other conditions of your academic work (e.g., tests, papers, projects, assignments) so as to get undeserved credit. The use of the intellectual property of others without giving them appropriate credit is a serious academic offense. Proper citations are always required. It is the University's policy that cheating or plagiarism result in receiving a failing grade (0 points) for the work or course. Repeat offenses may result in dismissal from the University.
- E. Students with disabilities:** Students with disabilities should feel free to contact the instructor in the beginning of the semester for any special accommodations. Such students should also meet with the officials in Academic Advising Center.

COURSE SCHEDULE

Note: The following schedule is tentative and may be modified as the class progresses. The instructor will inform students of any changes; however, it is the student's responsibility to keep up with any modifications made.

DATES	TOPICS	Readings	Assignments
Unit 1 – Deadline: January 1, 11:59PM			
December 26 - January 1	Introduction to the course	Chapter 1	Practice Test
	Project Management	Chapter 3	Quiz 1
	Forecasting	Chapter 4	Web Exercise 1
	Process strategy & Capacity Planning	Chapter 7 Supplement 7	Exam 1
Unit 2 – Deadline: January 8, 11:59PM			
January 2 - January 8	Decision-making Tools	Module A	Quiz 2
	Linear Programming	Module B	Web Exercise 2
	Simulation	Module F	Exam 2
	Layout Strategies	Chapter 9	
Unit 3 – Deadline: January 14, 11:59PM			
January 8 - January 14	Managing Quality	Chapter 6	Quiz 3
	Statistical Control	Supplement 6	Web Exercise 3
	Inventory Management	Chapter 11	Final Exam
	Supply Chain Management	Chapter 12	