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

Course Number & Title: MGT-4310 - Production and Operations Management

Semester: Winter 2018-2019
Professor: Dr. Cesar Perez-Alvarez
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Course Description

The main emphasis is on techniques and methods employed by managers to plan and control manufacturing and other operating systems. Applications of quantitative methods and various analytical techniques are stressed for operations system design, planning, control, problem solutions, productivity, inventory, scheduling, quality and capacity management, control system development, new technology evaluation and transportation problems. The learning process is enhanced by means of critically analyzing business cases.

Course Prerequisites

MGT 2000, MATH-1170, ECON, 2100, and ECON-2110

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

Student Learning Outcomes

Upon completion of this course, students should be able to:

- Understand and perform statistical quality controls.
- Select facility location and arrange the facility.
- Determine best timing and quantity in decisions of the type make versus buy.
- Integrate supply-chain management into e-commerce strategies
- Use basic POM methodologies in the solution of problems

Assurance of Learning Goals and Objectives

Upon completion of this course, students will be able to:

- Apply quantitative measures and analytical skills to make effective business decisions (Goal 3: Decision Making)
 - Ability to apply analytical skills to solve business problems (LO1)
 - Effectively apply learned quantitative methods to reach appropriate business decisions (LO2)

Course Topics

- Operations and Productivity
- Project Management
- Forecasting; Forecasting and Design
- Product and services design
- Managing Quality
- Process and Capacity Planning
- Location and layout strategies
- Supply Chain Management
- Inventory Management

Text

Heizer, J. and Render, B. (2018). Operations Management, (<u>Customized Edition</u>

<u>Including MyOMLab</u>). Prentice-Hall, Upper Saddle River, New Jersey 07458. <u>This edition</u>

<u>will be available in print and electronically</u>.

Or

Heizer, J. and Render, B. (2014-2018). Operations Management. Prentice-Hall, Upper Saddle River, New Jersey 07458. (<u>You would need to pay a fee to the publisher to be able to access MvOMLab</u>)

You can obtain temporary access from the publisher. This will allow you to access the course portal and the material until you buy the textbook.

You MUST register before you can access the material.

To register please follow the instructions provided. This portal will give you access to material used in the course. You will be able to practice with the concepts and get immediate feedback. It is an extremely effective approach to mastering the concepts and methodologies needed in the field of Operations Management.

I recommend that you register as soon as you can and, then, start exploring the tools available and becoming familiar with all the material and resources available.

REGISTRATION will be open until Saturday, December 29, NO EXTENSIONS WILL BE GIVEN.

Class Requirements

- There will twelve online guizzes and two online tests.
- Quizzes will be based on material in the corresponding chapter, excluding problems and calculations.
- Quizzes will be **timed**; once you start them, you will have **30 minutes** to answer all the **30 questions**. You are expected to read the chapters thoroughly before taking each quiz. **Exceeding the allotted time may result in points being deducted**.
- Quizzes for a week will be available during the entire week. They need to be completed by midnight on Sunday.
- If you do not take a quiz during the corresponding week, you will not be able to take it later.
- If you experience any problems taking any of the quizzes, send me a notification immediately after the problem takes place. I will fix it so that you can take it again.

- There will be **no make-ups** for any guizzes.
- Only ten out of the twelve quizzes will be included in the final grade. The selection will be <u>based on the highest scores of the quizzes/problems taken/completed</u>. If you do not take a quiz, a zero score will be obtained and included in the ten quizzes mentioned above.
- The midterm and final tests will be **problem-based**. The final test is notcumulative.
- The midterm and the final will be completed online at specific dates and times.
 Each test will contain four to five problems; you will have two hours to complete each test.
- The midterm will be made up of problems in chapters 1, 3, 4, and supplement6.
- The final will be made up of problems in chapters 7, 8, 12, supplement 7, and Module A
- I highly recommend that you prepare **formula sheets** for both tests.
- You will find solved problems (videos) in some of the chapters. I highly
 recommend that you use these problems (videos) in preparing for both the midterm
 and the final. In doing so, you will become acquainted with the procedures needed to
 solve problems in the corresponding chapters.
- Please note that the midterm and the final must be taken during these times:

Midterm: Sunday, January 6, 6-8 pm Final: Sunday, January 13, 6-8 pm

• There will not be deadline extensions.

Grading Policy

Grade for the course will contain the following:

Midterm 300 points Final 300 points Online quizzes (10 @ 40 points each) 400 points

Academic Integrity Policy

Students are expected to maintain the highest standards of academic honesty. Academic dishonesty, which will lead to failing the course, includes, but is not necessarily limited to, the following:

- Cheating: Giving or receiving unauthorized assistance in any academic exercise or examination. Using or attempting to use any unauthorized materials, information or study aids in an examination or academic exercise.
- Plagiarism: Representing the ideas of language of others as one's own.
- Falsification: Falsifying or inventing any information, data or citation in an academic exercise.
- Multiple Submissions: Submitting substantial portions of any academic exercise more than once for credit without the prior authorization and approval of the current instructor.
- Complicity: Facilitating any of the above actions or performing work that another student then presents as his or her assignments.
- Interference: Interfering with the ability of a fellow student to perform his or her assignments.

Schedule

Date	Topic	Readings	Activities
Week 1			
12/26	Operations Intro	Ch. 1	Online Quiz 1
12/27	Operations Strategy	Ch. 2	Online Quiz 2
12/28	Project Management	Ch. 3	Online Quiz 3
12/29	Forecasting	Ch. 4	Online Quiz 4
Week 2	2		
12/31	Design of goods and services	Ch. 5	Online Quiz 5
01/01	Quality management I	Ch. 6	Online Quiz 6
01/02	Quality management II	Supl. 6	Online Quiz 7
01/03	Supply Chain Management	Ch. 11	Online Quiz 8
01/04	Review Session		
	Midterm (6-8 pm)		Midterm test
Week 3			
01/07	Process Strategy	Ch. 7	Online Quiz 9
01/08	Capacity Planning	Supl. 7	Online Quiz 10
01/09	Location Strategies	Ch. 8	Online Quiz 11
01/10	Inventory Management	Ch. 12	Online Quiz 12
01/11	Review Session		
01/13	Final (6-8 pm)		Final test