Faculty of Economics and Business

BACHELOR´S DEGREE IN BUSINESS ADMINISTRATION

Course	**Production Management**	**Code**	802291
Module	Business Organization	**Area**	Operations and Technology Management
Character	Compulsory		
Credits	6	**Attendance**	2.7
		Non Attendance	3.3
Year	Third	**Semester**	6

Department	DEPARTMENT OF BUSINESS ORGANIZATION Coordinator: Francesco Sandulli

Professor and Coordinator	**e-mail**
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SYNOPSIS

BRIEF DESCRIPTION
The basic purpose of this course is to provide students with a broad understanding and knowledge of several operations management concepts and their corresponding strategic and tactical decisions.
PRE-REQUISITES
None

AIMS & OBJECTIVES

Upon completion of this course, the student should be able to understand management decisions related to operations strategy, process and product design, production planning, inventory management, scheduling, and quality management.

LEARNING OUTCOMES

General: CG1, CG2, CG3, CG4

Cross-sectional: CT1, CT2, CT4, CT5

Specific: CE1, CE2, CE3, CE4, CE7

LEARNING METHODOLOGY

A mixed methodology of teaching and learning will be used in all educational activities with the aim of encouraging students to develop a collaborative and cooperative attitude in the pursuit of knowledge.

TOPICS COVERED (Syllabus)

1. Introduction to Operations Management
    - 1.1. Operations Management Concept.
    - 1.2. Evolution of Operations Management.
    - 1.3. Goods and Services Differences.
    - 1.4. Operations Strategy.
2. Innovation Strategy and Product Design.
    - 2.1. Innovation Models.
    - 2.2. Open Innovation.
    - 2.3. Product Development.
    - 2.4. Issues for Product Design.
3. Production Process Design.
    - 3.1. Fit between Product and Process Design.
    - 3.2. Production Process and Facility Layout.
    - 3.3. Production Processes for Services Operations.
    - 3.4. Just-in Time (JIT) and Lean Production.
4. Production Planning.
    - 4.1. Planning Horizons.
    - 4.2. Aggregate Planning Strategies.
    - 4.3. Aggregate Planning Methods.
5. Inventory Management
    - 5.1. Functions of Inventory.
    - 5.2. Inventory Models.
    - 5.3. Inventory Models for Independent Demand.
    - 5.4. Inventory Models for Dependent Demand.
6. Supply Chain Management.

6.1. Supply Chain Economics. 6.2. Supply Chain Strategies. 6.3. Vendor Selection

TEACHING ACTIVITIES	% OF TOTAL CREDITS	ATTENDANCE
Lectures	20%	100%
Classes	20%	75%
Tutorials	6%	100%
Assessment activities	4%	100%
Homeworks and class assignments	20%	0%
Time to study	30%	0%

ASSESSMENT		
Examination	% Share of Final Grade	60%
Final mandatory exam will place an emphasis on understanding important concepts and principles and on the application of these concepts and principles. The final exam includes concepts covered up during the whole term.		
Routine tests	% Share of Final Grade	20%
Upon completion of each topic students will take a short test on the concepts for that topic.		
Home exercises, Class participation	% Share of Final Grade	20%
From time to time, homework assignments will be given. These assignments may or may not be collected in class the scheduled day. However, it is strongly suggested that students always do the assignment for the next class period. Students should participate actively in class discussions, failure to contribute to class discussion will result in the loss of 5% of total final grade.		
ASSESSMENT CRITERIA		
- The final exam will take place in the official date established by the Dean of the Faculty. - The student will benefit from the grade of no show if they decide to opt for it before mid-term. you fail to make the practical activities of the subject during the first month and a half of teaching. - Successful completion of the course needs a minimum score of 3 points in the final exam. 50% or above. - The use of calculators will not be allowed in the exams. - Scores obtained through routine tests, class participation and home exercises will be taken into account for both June and July exams. In the ordinary call the student must decide (in the first and a half month) whether to follow the continuous assessment or not. If the student decides not to follow the continuous assessment and does not sit for the final exam, the rating will be NP (not evaluated). If the student follows the continuous assessment, the final grade will be that obtained from applying the criteria set in the course tab, even if he/she does not sit for the final exam. In the extraordinary call, if the student does not sit for the exam, the rating will be NP (not evaluated), regardless whether he/she followed the continuous assessment. In the case the student sits for the exam, the grade will be the result of applying the evaluation criteria set in the course tab.		

Continuous assessment in the extraordinary examination: in case one student has failed the ordinary examination, having attended the final exam and participated in the continuous assessment, the mark to be considered as continuous assessment for that extraordinary examination will be the final mark obtained in the ordinary examination.

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TIMETABLE

Week	TOPIC	In the classroom	Outside the classroom
1	Introduction to Operations Management	Discussing the basic concepts of Operations Strategy	• Preparing business cases on innovation management
2	Innovation Strategy and Product Design.	1st Test Discussing different innovation models Discussing the new trend of open innovation	• Preparing business case on product development
3	Innovation Strategy and Product Design.	Discussing the product development process	• Preparing Chapter 5 Heizer and Render.
4	Innovation Strategy and Product Design.	Discussing issues for product design 1st Seminar – Product development process	• Preparing Chapter 7 Heizer and Render
5	Production Process Design.	2nd Test Discussing product and process design fit	• Preparing Chapter 7 Heizer and Render
6	Production Process Design.	Discussing services operations	• Preparing JIT business case
7	Production Process Design.	Discussing JIT and Lean Operations	• Preparing Chapter 13 Heizer and Render

8	Production Planning.	4th Test Discussing Aggregate Planning strategies 2nd Seminar – Production Planning	• Preparing Chapter 13 Heizer and Render
9	Production Planning.	Discussing Aggregate Planning Methods	• Preparing Chapter 12 Heizer and Render
10	Inventory Management	5th Test Discussing Inventory Models for Independent Demand	• Preparing Chapter 14 Heizer and Render
11	Inventory Management	Discussing Inventory Models for Dependent Demand	• Preparing Chapter 11 Heizer and Render
12	Supply Chain Management	6th Test Discussing Supply Chain Strategies 3rd Seminar - Dependent Demand Inventory Models	• Preparing Chapter 11 Heizer and Render
13	Supply Chain Management	Discussing Supply Chain Strategies and Vendor Selection	• Preparing Chapter 6 Heizer and Render and Supplement to Chapter 6 Heizer and Render
14	Review	Final Review of Contents	
15	Review	Final Review of Contents	

RESOURCES

BASIC BIBLIOGRAPHY

Jay Heizer and Barry Render (2010) Operations Management. Prentice Hall.

ADDITIONAL READING

- Foster, R. "The S Curve: A New Forecasting Tool." Chapter 4 in Innovation: The Attacker's Advantage. New York, NY: Summit Books, 1986. ISBN: 9780333435113
- Christensen, Clayton. The Innovator's Dilemma. Boston, MA: Harvard Business School Press, 1997. ISBN: 9780875845852
- Gladwell, Malcolm. "Smaller: The Disposable Diaper and the Meaning of Progress." The New Yorker, November 16, 2001
- Huston, L and Sakkab, N. Connect and Develop, Inside Procter and Gamble's New Model for Innovation, Harvard Business Review, March 2006
- Team New Zealand, Harvard Business School Case N. 9-67-040
- Ed Catmull, How Pixar fosters collective creativity, Harvard Business Review, September 2008
- Chesbrough, Henry. Open Innovation: The New Imperative for Creating and Profiting from Technology. Boston, MA: Harvard Business School Press, 2005, pp. 113-134. ISBN: 9781422102831
- F. Robert Jacobs, Richard B. Chase and Nicholas J. Aquilano, Operations & Supply Management 13th edition, Mc Graw Hill

OTHER RESOURCES

POM Software: http://wps.prenhall.com/bp_weiss_software_1/1/358/91664.cw/

Ikea Production Process: https://www.youtube.com/watch?v=4vNou6gnpTU

McDonalds JIT: https://www.youtube.com/watch?v=tkQWzjTz0pQ

Yamaha Production Process:
https://www.youtube.com/watch?v=1tJoYWwkxW4

https://www.youtube.com/watch?v=OICs5IiyNCs

https://www.youtube.com/watch?v=ZVsaVeYnLVo

IDEO Design Thinking:

https://www.youtube.com/watch?v=taJOV-YCieI

SABI Data Base