



The University of Jordan

Accreditation & Quality Assurance Center

COURSE Syllabus

1	Course title	Operation Management
2	Course number	5201413
3	<i>Credit hours (theory, practical)</i>	3
	<i>Contact hours (theory, practical)</i>	3
4	Prerequisites	5201311
5	Program title	Business management
6	Program code	03
7	Awarding institution	The university of Jordan
8	Faculty	Management and finance
9	Department	Business management
10	Level of course	2
11	Year of study and semester (s)	2nd semester 2014/2015
12	Final Qualification	Bachelor
13	Other department (s) involved in teaching the course	None
14	Language of Instruction	English
15	Date of production/revision	2nd semester 2016 / revised yearly

16. Course Coordinator:

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17. Other instructors:

Office numbers, office hours, phone numbers, and email addresses should be listed.

18. Course Description:

As stated in the approved study plan.

The intent of this course is to further provide management and analytical concepts/tools for the management of operations and the decision-making process within the scope of the supply chain. Nowadays, most of the operational strategies involve improving operational efficiency either through cost reductions or increase

capital efficiency. Decision-making regarding operational issues is one of the most common tasks within organizations. This course will enhance students' ability to perform the quantitative analysis necessary and understand the management issues in order to make good operational decisions within the organization. Coverage is topical and will include operations strategy, forecasting and scheduling, process design, capacity planning, location and layout decision, inventory management and enterprise resource planning.

A- Aims:

The basic objective of this course is to introduce the students to the basic concepts and principles of operations management. In addition the course will aim at developing students' skills in using quantitative methods to analyze and solve operations and production problems. Furthermore the course focuses on preparing students for future operations related careers, and exposing them to the complexity of decision making in real life

Intended Learning Outcomes (ILOs):

Successful completion of the course should lead to the following outcomes:

A. Knowledge and Understanding: Students are expected to

- Understand the purpose of research.
- Be familiar with discipline specific.
- Utilize resources and methodologies for conducting research.
- Develop critical thinking skills.

B. Intellectual Analytical and Cognitive Skills: Students are expected to

- Understand the basic principles of research design and strategy, including an understanding of how to formulate researchable problems and an appreciation of alternative approaches to research.
- Be able to read critically articles in core academic journals, and develop an awareness of the frontiers of specialist areas, including the way in which concepts and methods are used in current debate.

C. Subject- Specific Skills: Students are expected to

- Acquire skills to locate problem areas in organizational settings, and plan, organize, design, and conduct research to help solve the identified problems
- Get conversant with the use of statistical analysis and computer programs
- Write and present research reports.

D. Transferable Key Skills: Students are expected to

- D1- Display an integrated approach to the deployment of analytical skills.
- D2- Display effective time management by working to deadlines in relation to the course requirements.
- D3- Develop efficient decision-making process based on objective quantitative and qualitative data.

ILOs: Learning and Evaluation Methods: Lectures and Discussions, Homework and Assignments, Projects, Presentation, group work, reading material, and brainstorming.

Evaluation Methods: Exam, Quiz, presentation, project, assignments

Evaluation Methods

Midterm Exam (%30)

Assignments + Research Proposal (%20)

Final Exam (%50)

20. Topic Outline and Schedule:

1.

Topic	Week	Instructor	Achieved ILOs	Reference
Introduction to Operations Management (Chapter 1)	1		Define operations management 2. Explain the distinction between goods and services 3. Explain the difference between production and productivity 4. Identify the critical variables in enhancing productivity	
The Global Environment and Operations Strategy			Define mission and strategy 2. Identify and explain three strategic approaches to competitive advantage 3. Identify and define the 10 decisions of operations management 4. Identify five OM strategy insights provided by PIMS research 5. Identify and explain four global operations strategy options	
Forecasting Demand			Understand the three time horizons and which models apply for each 2. Explain when to use each of the four qualitative models 3. Apply the naive, moving average, exponential smoothing, and trend methods 4. Compute three measures of forecast accuracy 5. Conduct a regression and correlation analysis 6. Use a tracking signal	
Forecasting Demand			Understand the three time horizons and which models apply for each 2. Explain when to use each of the four qualitative models 3. Apply the naive, moving average, exponential smoothing, and trend methods 4. Compute three measures of forecast accuracy 5. Conduct a regression and correlation analysis 6. Use a tracking signal	
Process Design			1. Describe four production processes Compute crossover points for different processes 2. Use the tools of process analysis 3. Describe customer	

			interaction in process design	
Capacity Planning (Supplement, Location Decisions			<ol style="list-style-type: none"> 1. Define capacity 2. Determine design capacity, effective capacity, and utilization 3. Compute break-even 4. Apply decision trees to capacity decisions 5. Compute net present value 	
Location Decisions			<ol style="list-style-type: none"> 1. Identify and explain seven major factors that affect location decisions 2. Compute labor productivity 3. Apply the factor-rating method 4. Complete a locational break-even analysis graphically and mathematically 5. Use the center-of-gravity method 	
Layout Decisions			<ol style="list-style-type: none"> 1. Discuss important issues in office layout 2. Define the objectives of retail layout 3. Discuss modern warehouse management and terms such as ASRS, cross-docking, and random stocking 	
Managing Inventory			<ol style="list-style-type: none"> 1. Conduct an ABC analysis 2. Explain and use cycle counting 3. Explain and use the EOQ model for independent inventory demand 4. Compute a reorder point and explain safety stock 5. Apply the production order quantity model 6. Explain and use the quantity discount model 7. Understand service levels and probabilistic inventory models 	
Material Requirements Planning and Enterprise Resource Planning			<ol style="list-style-type: none"> 1. Develop a product structure 2. Build a gross requirements plan 3. Build a net requirements plan 4. Determine lot sizes for lot-for-lot, EOQ, and PPB 	
Material Requirements Planning and Enterprise Resource			<ol style="list-style-type: none"> 5. Describe MRP II 6. Describe closed-loop MRP 7. Describe ER 	

Planning				
Scheduling for the short term			<ol style="list-style-type: none"> 1. Explain the relationship between short-term scheduling, capacity planning, aggregate planning, and a master schedule 2. Draw Gantt loading and scheduling charts 3. Apply the assignment method for loading jobs 4. Name and describe each of the priority sequencing rules 5. Use Johnson's rule 6. Define finite capacity scheduling 7. List the steps in the theory of constraints 8. Use the cyclical scheduling 	

21. Teaching Methods and Assignments:

*Development of ILOs is promoted through the following **teaching and learning methods:***

- 1- presenting theoretical aspects of topics**
- 2- solving practical case studies**

22. Evaluation Methods and Course Requirements:

*Opportunities to demonstrate achievement of the ILOs are provided through the following **assessment methods and requirements:***

- 1- short exams**
- 2- short home assignments**
- 3- make virtual projects for capital budgeting techniques**

23. Course Policies:

- A- Attendance policies: according to Jordanian university rules
- B- Absences from exams and handing in assignments on time: according to Jordanian university rules
- C- Health and safety procedures: according to Jordanian university rules
- D- Honesty policy regarding cheating, plagiarism, misbehavior: according to Jordanian university rules

E- Grading policy: according to Jordanian university rules

F- Available university services that support achievement in the course: computer lap , internet

24. Required equipment:

The course needs :

1- specific computer lap for faculty

2- periodical visits to corporations

25. References:

Main Reference/s:

Hiezer, J., Reder, P., and Al-Zu'bi, Z., Operations Management, 1st Arab Word edition, Pearson, 2013.

References:

1-William Stevenson, 2008, Operations Management, 10th ed., McGraw-Hill/Irwin, Boston.

2-Krajewski, Ritzman, and Malhorta, 2009, Operations Management, 9th ed., Prentice Hall.

3- Chase Richard B. Operations Management of competitive Advantage, 11th edition, McGraw-Hill.

4- Davis, Aquilano, and Chase, Fundamentals of Operations Management, 3rd edition, McGraw-Hill/Irwin.

5- Schroedor Roger G. Operations Management: Contemporary concepts and cases, 5th ed., Mc Graw-Hill, 2010.

6- Make a good use of library resources such as journals and research papers in addition to the internet resources.

26. Additional information:

Intended Grading Scale (Optional)

0-39 **F**

45-49 **D-**

50-54 **D**

54-69 **D+**

60-64 **C-**

65-69 **C**

70-73 **C+**

74-76 **B-**

77-80 **B**

81-84 **B+**

85-89 A-
90-100 A

Name of Course Coordinator: -----Signature: ----- Date: -----

Head of curriculum committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

Head of curriculum committee/Faculty: ----- Signature: -----

Dean: ----- -Signature: -----

Copy to:
Head of Department
Assistant Dean for Quality Assurance
Course File