



## Form: Course Syllabus

<b>Form Number</b>	EXC-01-02-02A
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<b>Number of Pages</b>	06

<b>1. Course Title</b>	Production and Operations Management
<b>2. Course Number</b>	1601719
<b>Credit Hours (Theory, Practical)</b>	3
<b>3. Contact Hours (Theory, Practical)</b>	Sun.: 16.00-17.00 Mon.: 12.30-13.15 Wed.: 12.30-13.15
<b>4. Prerequisites/ Corequisites</b>	-
<b>5. Program Title</b>	Business Administration
<b>6. Program Code</b>	011
<b>7. School/ Center</b>	School of Business
<b>8. Department</b>	Business Management
<b>9. Course Level</b>	MBA
<b>10. Year of Study and Semester (s)</b>	2025/2026, First semester
<b>11. Program Degree</b>	Master of Business Administration (MBA)
<b>12. Other Department(s) Involved in Teaching the Course</b>	-
<b>13. Learning Language</b>	English
<b>14. Learning Types</b>	<input checked="" type="checkbox"/> Face to face learning <input type="checkbox"/> Blended <input type="checkbox"/> Fully online
<b>15. Online Platforms(s)</b>	<input type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams
<b>16. Issuing Date</b>	30/9/2025
<b>17. Revision Date</b>	

### 18. Course Coordinator:

Name: Prof. Ayman Abdallah	Contact hours: As shown above
Office number: 113	Phone number: 24192
Email: a.abdallah@ju.edu.jo	

### 19. Other Instructors:



Name:  
 Office number:  
 Phone number:  
 Email:  
 Contact hours:  
 Name:  
 Office number:  
 Phone number:  
 Email:  
 Contact hours:

## 20. Course Description:

This course provides students with essential management and analytical tools for operations management and decision-making across key areas, including project management, demand forecasting, process management, capacity planning, inventory management, and more. In today's dynamic business environment, operational strategies primarily focus on enhancing efficiency through cost reduction and optimizing capital utilization. Since operational decision-making is integral to organizational success, this course equips students with the quantitative analysis skills and managerial insights necessary to make informed operational decisions. By emphasizing an operations perspective, the course highlights the critical role of operations in achieving competitive advantage and improving profitability.

## 21. Program Intended Learning Outcomes: (To be used in designing the matrix linking the intended learning outcomes of the course with the intended learning outcomes of the program)

PLO's	*National Qualifications Framework Descriptors*		
	Competency (C)	Skills (B)	Knowledge (A)
1. Identify the major issues characterizing an organization business environment using advanced rigorous knowledge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Adopt autonomy, accountability and continuous self-development in	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



analyzing and performing major managerial tasks at their work places			
3. Develop advanced problem solving and analytical skills through exposure to real-life case studies	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Apply quantitative and qualitative skills related to operations management, project management and quality management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**22. Course Intended Learning Outcomes:** (Upon completion of the course, the student will be able to achieve the following intended learning outcomes)

Course ILOs #	The learning levels to be achieved						Competencies
	Remember	Understand	Apply	Analyse	Evaluate	Create	
1- Critically analyze the principles of operations and production management, distinguish between goods and services, and evaluate productivity measures to enhance operational performance		✓	✓	✓			Demonstrate advanced knowledge of operations management principles, critically differentiate between goods and services, and apply productivity metrics to assess and enhance operational performance
2- Critically examine the strategic role of operations strategy in achieving and sustaining organizational competitive advantage.				✓	✓		Assess how operations strategy aligns with organizational goals and contributes to long-term



							competitive advantage.
3- Comprehend advanced Project Management concepts, with a focus on project scheduling (PERT) and project crashing, and assess their impact on project success.		✓		✓			Master advanced project management tools and evaluate their effectiveness in meeting project objectives.
4- Integrate qualitative and quantitative forecasting techniques for effective decision-making in complex business environments.			✓			✓	Combine forecasting methods to support strategic decision-making in dynamic and uncertain business contexts.
5- Apply advanced quality management principles, including TQM and Six Sigma, to enhance organizational efficiency and competitiveness.			✓		✓		Implement quality management frameworks to drive operational excellence and competitive differentiation.
6- Assess the four strategies for designing production processes and justify their applicability in different operational settings.				✓	✓		Evaluate production process design strategies and recommend the most suitable approach for specific operational contexts.
7- Analyze design capacity, effective capacity, utilization, and efficiency metrics, and conduct bottleneck analysis to optimize operational performance.				✓	✓		Diagnose operational bottlenecks and propose solutions to improve capacity utilization and efficiency.
8- Critically assess qualitative and quantitative factors influencing location				✓		✓	Synthesize qualitative and quantitative data to develop



decisions and formulate data-driven optimization strategies.							optimal location strategies for operational success.
9- Develop optimal layout designs for process-oriented, product-oriented, fixed-position, and office facilities to enhance operational workflow			✓			✓	Design facility layouts that maximize efficiency, productivity, and workflow alignment with organizational goals.
10- Optimize assembly-line balancing strategies in repetitive or product-oriented manufacturing environments.			✓			✓	Implement assembly-line balancing techniques to improve throughput and reduce waste in manufacturing operations.
11- Formulate inventory management strategies by applying economic order quantity, production order quantity, and quantity discount models for cost-effective supply chain management.			✓			✓	Develop inventory management strategies that minimize costs while maintaining supply chain efficiency and responsiveness.

**23. The matrix linking the intended learning outcomes of the course -CLO's with the intended learning outcomes of the program -PLOs:**

CLO's * PLO's	1	2	3	4	Descriptors**		
					A	B	C
1		✓				B	
2	✓				A		
3				✓	A		
4		✓				B	
5		✓				B	



6				✓	A		
7		✓					C
8			✓		A		
9			✓			B	
10			✓				C
11			✓			B	

#### 24. Topic Outline and Schedule:

Week	Lecture	Topic	ILO/s Linked to the Topic	Learning Types (Face to Face/ Blended/ Fully Online)	Platform Used	Synchronous / Asynchronous Lecturing	Evaluation Methods	Learning Resources
1	1.1	Chapter 1. Introduction to Operations Management	1, 2, and 5	Face to Face		Synchronous lecturing	Follow up questions -Exercises	Textbook Slides
	1.2							
	1.3							
2	2.1	Chapter 2. The Global Environment and Operations Strategy	1, 2, and 3	Face to Face		Synchronous lecturing	Follow up questions -Exercises	Textbook Slides
	2.2							
	2.3							
3	3.1	Chapter 3. Managing Projects	1, 2, and 4	Face to Face		Synchronous lecturing	Follow up questions -Exercises	Textbook Slides
	3.2							



	3.3						
4	4.1	Chapter 3. Managing Projects	1, 2, and 4	Face to Face		Synchronous lecturing	Follow up questions -Exercises
	4.2						
	4.3						
5	5.1	Chapter 4. Forecasting Demand	3 and 7	Face to Face		Synchronous lecturing	Follow up questions -Exercises
	5.2						
	5.3						
6	6.1	Chapter 4. Forecasting Demand	3 and 7	Face to Face		Synchronous lecturing	Follow up questions -Exercises
	6.2						
	6.3						
7	7.1	Chapter 6. Quality Management and International Standards	4 and 10	Face to Face		Synchronous lecturing	Follow up questions -Exercises
	7.2						
	7.3						
8	8.1	Chapter 7. Process Design	5,6, and 8	Face to Face		Synchronous lecturing	Follow up questions -Exercises
	8.2						
	8.3						
9	9.1	Supplement 7. Capacity Planning	8, 10, and 11	Face to Face		Synchronous lecturing	Follow up questions -Exercises
	9.2						
	9.3						
10	10.1	Chapter 8. Location Decisions	4 and 6	Face to Face		Synchronous lecturing	Follow up questions -Exercises
	10.2						



	10.3						
11	11.1	Chapter 9. Layout Decisions	8, 10 and 11	Face to Face		Synchronous lecturing	Follow up questions -Exercises
	11.2						
	11.3						
12	12.1	Chapter 9. Layout Decisions	8, 10 and 11	Face to Face		Synchronous lecturing	Follow up questions -Exercises
	12.2						
	12.3						
13	13.1	Chapter 12. Managing Inventory	9, 10 and 11	Face to Face		Synchronous lecturing	Follow up questions -Exercises
	13.2						
	13.3						
14	14.1	Chapter 12. Managing Inventory	9, 10 and 11	Face to Face		Synchronous lecturing	Follow up questions -Exercises
	14.2						
	14.3						
15	15.1	Project Presentations	All	Face to Face		Synchronous / asynchronous lecturing	Follow up questions
	15.2						
	15.3						



## 25. Evaluation Methods:

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

Evaluation Activity	*Mark wt.	CLO's										
		1	2	3	4	5	6	7	8	9	10	11
First Exam	30	✓	✓	✓	✓		✓					
Second Exam –If any												
Final Exam	40		✓		✓	✓	✓	✓	✓	✓	✓	✓
**Class work	10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Projects/reports	20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Research working papers												
Field visits												
Practical and clinical												
Performance Completion file												
Presentation/exhibition												
Any other approved works												
Total 100%	100											

## Mid-term exam specifications table\*

No. of questions/ cognitive level						No. of questions per CLO	Total exam mark	Total no. of questions	CLO/ Weight	CLO no.
Create %10	Evaluate %10	analyse %10	Apply %20	Understand %20	Remember %30					
		1				1	30	5	26.6%	1
					1	1	30	5	13.3%	2
1						1	30	5	23.4%	3
			1			1	30	5	23.4%	4
	1					1	30	5	13.3%	6



### Final exam specifications table

No. of questions/ cognitive level						No. of questions per CLO	Total exam mark	Total no. of questions	CLO Weight	CLO no.
Create %10	Evaluate %10	analyse %10	Apply %20	Understand %20	Remember %30					
					1	1	40	9	7.5%	2
					1	1	40	9	7.5%	4
				1		1	40	9	10%	5
					1	1	40	9	10%	6
		1				1	40	9	12.5%	7
			1			1	40	9	10%	8
				1		1	40	9	12.5%	9
	1					1	40	9	12.5%	10
1						1	40	9	17.5%	11

### 26. Course Requirements:

(e.g.: students should have a computer, internet connection, webcam, account on a specific software/platform...etc.):

Students must have access to the university's e-learning platform, Microsoft Teams, and the university's library e-resources.

### 27. Course Policies:

**A- Attendance policies:** Students are not permitted to miss more than 15% of the total classes during the semester. Failure to meet this requirement will result in disciplinary action in accordance with university regulations. Regular attendance is essential for academic success and active participation in the course.

**B- Absences from exams and submitting assignments on time:** All assignments must be submitted by the specified deadlines. Late submissions will not be accepted unless prior approval is granted by the instructor due to exceptional circumstances. Students who miss exams must obtain official permission from the Deputy Dean for Students' Affairs to be eligible for a makeup exam. Documentation supporting the absence (e.g., medical reports) is required.

**C- Health and safety procedures:** Students are expected to adhere to all health and safety guidelines provided by the university. This includes following protocols for in-person classes, such as maintaining hygiene, wearing masks if required, and reporting any health concerns to the appropriate



authorities. In case of emergencies, students must follow the university's emergency response procedures.

D- Honesty policy regarding cheating, plagiarism, misbehavior: Academic integrity is a cornerstone of this course. Any form of cheating, plagiarism, or misbehavior will not be tolerated and will be addressed in accordance with the university's disciplinary rules. Students are expected to submit original work and properly cite all sources used in their assignments. Violations may result in penalties, including failing the assignment or the course.

E- Grading policy: The grading policy for this course is as outlined in the course syllabus. Grades will be based on a combination of exams, assignments, participation, and other assessments as described. Students are encouraged to review the grading criteria carefully and seek clarification from the instructor if needed.

F- Available university services that support achievement in the course: The university provides several resources to support student success, including the e-library, the e-learning platform, Microsoft Teams, and academic Advising. Students are encouraged to utilize these services to enhance their learning experience and achieve their academic goals.

## 28. References:

A- Required book(s), assigned reading and audio-visuals:

Hiezer, J., Render, B., and Munson, C. (2020). Operations Management: Sustainability and Supply Chain Management, 13th Edition, Pearson.

B- Recommended books, materials, and media:

1- Stevenson, W. (2020). Operations Management, 14th ed., McGraw Education.

2-Krajewski, L., Malhorta, M. and Ritzman, L. (2024). Operations Management: Processes and Supply Chains, 14<sup>th</sup> ed., Pearson

3. Slack, N., Brandon-Jones, A. and Burgess, N. (2022). Operations Management, 10th ed., Pearson.



**29. Additional information:**

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Name of the Instructor or the Course Coordinator:

Prof. Ayman Abdallah

Signature:

Date:  
30/9/2025

Name of the Head of Quality Assurance Committee/ Department

Signature:

Date:

.....  
Name of the Head of Department

Signature:

Date:

.....  
Name of the Head of Quality Assurance Committee/ School or Center

Signature:

Date:

.....  
Name of the Dean or the Director

Signature:

Date: