Form: Course Syllabus	Form Number	EXC-01-02-02A
	Issue Number and Date	2/3/24/2022/2963 05/12/2022
	Number and Date of Revision or Modification	2023/10/15
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	The Date of the Deans Council Approval Decision	2024/1/23
	Number of Pages	06

1.	Course Title	Operations and Production Management
2.	Course Number	1601413
3.	Credit Hours (Theory, Practical)	3
	Contact Hours (Theory, Practical)	3
4.	Prerequisites/ Corequisites	1601311 (Operations Research)
5.	Program Title	Bachelor of Business Administration
6.	Program Code	010
7.	School/ Center	University of Jordan
8.	Department	School of Business
9.	Course Level	Business administration
10.	Year of Study and Semester (s)	Bachelor
11.	Program Degree	2025-2026 / 1st semester
12.	Other Department(s) Involved in Teaching the Course	Operations and Production Management
13.	Learning Language	English
14.	Learning Types	☒Face to face learning ☐Blended ☐Fully online
15.	Online Platforms(s)	☒Moodle ☒Microsoft Teams
16	Issuing Date	
17.	Revision Date	2025

18. Course Coordinator:

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

19. Other Instructors:

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20. Course Description:

As stated in the approved study plan. This course provides knowledge and insights on the basic concepts and principles of Operations and Production Management in both manufacturing and service settings. In addition, the course aims at developing students' skills in using quantitative methods to solve and analyze problems related to Operations Management. Furthermore, the course focuses in preparing students for future operations related careers, and exposing them to the complexity of decision making in real life. The focus on the operations perspective aims at providing the students with sufficient insights on the crucial role of operations to achieving a competitive advantage and increasing 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. Examine the main concepts, principles and theories associated with business management and discuss a substantial body of subject-based knowledge of business. (PLO 1)	☐	☐	☒

2. Apply problem solving, critical thinking and decision-making skills to solve problems related to business management and recommended further actions. (PLO 2)	☒	☐	☐
3. Demonstrate Analysis and strategic planning skills and optimal utilization of human resources skills. (PLO3)	☒	☐	☐
4. Illustrate quantitative and qualitative skills related to operations, quality, project, and supply chain management. (PLO4)	☐	☒	☐

* Choose only one descriptor for each learning outcome of the program, whether knowledge, skill, or competency.

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. Define operations and production management and distinguish between goods and services	*						Explain key concepts and functions of operations and production management. Differentiate between tangible goods and intangible services in terms of operations.
2. Compute and interpret single-factor, multi-factor, and total productivity.		*	*				Accurately calculate different productivity measures. Analyze productivity results to identify efficiency improvements.

3. Discuss the strategic role of operations strategy in achieving organizational competitive advantage.	*	*					Evaluate how operations strategy aligns with business objectives. Assess the impact of operational decisions on competitive advantage.
4. Apply qualitative and quantitative forecasting techniques			*	*			Select appropriate forecasting methods for different business scenarios. Analyze forecasting results to support decision-making.
5. Describe the four strategies to design production processes	*	*			*		Identify key characteristics of each production process strategy. Assess the suitability of different process strategies for various industries.
6. Compute and interpret design capacity, effective capacity, utilization, and efficiency and Perform bottleneck analysis.		*	*				Calculate and analyze capacity-related performance measures. Identify and address bottlenecks in production systems.
7. Discuss qualitative factors and quantitative methods for optimizing location decisions.		*	*		*	*	Evaluate location choices using qualitative considerations. Apply quantitative models to optimize facility location.
8. Explain how to achieve a good layout for process-oriented facilities, product-oriented facilities, fixed-position facilities, and offices.	*	*			*		Compare and contrast different facility layouts. Design effective layouts to optimize workflow and efficiency.
9. Perform assembly-line balancing in a repetitive or product-oriented facility.	*	*			*		Apply assembly-line balancing techniques to improve efficiency. Minimize idle time and ensure smooth production flow.
10. Apply the economic order quantity, the	*	*	*		*		Compute optimal order quantities

production order quantity, and the quantity discounts inventory models.							using different inventory models. Evaluate the cost implications of inventory decisions.

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

PLO's * / CLO's	1	2	3	4	Descriptors**		
					A	B	C
1	*				*		
2	*			*	*	*	
3	*		*		*		*
4		*		*		*	*
5	*	*	*		*		*
6	*	*		*	*	*	*
7	*	*		*	*	*	*
8	*	*	*		*		*
9	*			*	*	*	*
10	*	*	*	*	*	*	*

***Linking each course learning outcome (CLO) to only one program outcome (PLO) as specified in the course matrix.**

****Descriptors are determined according to the program learning outcome (PLO) that was chosen and according to what was specified in the program learning outcomes matrix in clause (21).**

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	Introductory lecture	-	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	1.2	**Ch. 1**: Defining operations and production management, distinguishing between goods and services, understanding the difference between production and productivity, introduction to productivity.	1 &1.1	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	1.3	**Ch. 1**: Defining operations and production management, distinguishing between goods and services, understanding the difference between production and productivity, introduction to productivity.	1 &1.1	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
2	2.1	**Ch. 1:** Computing single-factor, multi-factor, and total	1 &1.1	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook

		productivity, and identifying the critical variables enhancing productivity.						
	2.2	**Ch. 1:** Computing single-factor, multi-factor, and total productivity, and identifying the critical variables enhancing productivity.	1 &1.1	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	2.3	**Ch. 1:** Computing single-factor, multi-factor, and total productivity, and identifying the critical variables enhancing productivity.	1 &1.1	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
3	3.1	**Topic**	**Intended Learning Outcome**	**Learning Methods (Face to Face/Blended/ Fully Online)**	**Platform**	**Synchronous / Asynchronous Lecturing**	**Evaluation Methods**	**Resources**
	3.2	**Ch. 2:** understanding a global view of operations, defining mission and strategy, identifying and explaining three strategic approaches to competitive advantage, identifying and defining the 10 decisions of operations management that support the achievement of the required	2	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook

		competitive strategy.						
	3.3	Ch. 2: understanding a global view of operations, defining mission and strategy, identifying and explaining three strategic approaches to competitive advantage, identifying and defining the 10 decisions of operations management that support the achievement of the required competitive strategy.	2	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
4	4.1	Ch. 2: understanding a global view of operations, defining mission and strategy, identifying and explaining three strategic approaches to competitive advantage, identifying and defining the 10 decisions of operations management that support the achievement of the required competitive strategy.	2	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	4.2	**Ch. 4**: Introduction to demand forecasting, qualitative	3	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook

		forecasting methods, quantitative forecasting: the naive, simple moving-average, weighted moving-average, and exponential smoothing.						
	4.3	**Ch. 4**: Introduction to demand forecasting, qualitative forecasting methods, quantitative forecasting: the naive, simple moving-average, weighted moving-average, and exponential smoothing.	3	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
5	5.1	**Ch. 4**: Introduction to demand forecasting, qualitative forecasting methods, quantitative forecasting: the naive, simple moving-average, weighted moving-average, and exponential smoothing.	3	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	5.2	**Ch. 4:** Trend adjusted exponential smoothing forecasting methods. Computing a forecasting accuracy MAD	3	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook

		measure. Seasonality and seasonal indices computation.						
	5.3	**Ch. 4:** Trend adjusted exponential smoothing forecasting methods. Computing a forecasting accuracy MAD measure. Seasonality and seasonal indices computation.	3	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
6	6.1	**Ch. 4:** Trend adjusted exponential smoothing forecasting methods. Computing a forecasting accuracy MAD measure. Seasonality and seasonal indices computation.	3	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	6.2	**Ch. 7**: Process design: the four production processes: process focus, repetitive focus, product focus, and mass customization.	4	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	6.3	**Ch. 7**: Process design: the four production processes: process focus, repetitive focus, product focus, and mass customization.	4	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
7	7.1	**Ch. 7**: Process design: the	4	Face to face	Moodle	-	Exams, Assignments,	Main Textbook

		four production processes: process focus, repetitive focus, product focus, and mass customization.					In-class discussion	
	7.2	**Ch. 7:** Comparison of the characteristics of four types of processes -Comparison of process choices using crossover chart -Process analysis tools including flow chart, value-stream mapping, and process charts.	4	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	7.3	**Ch. 7:** Comparison of the characteristics of four types of processes -Comparison of process choices using crossover chart -Process analysis tools including flow chart, value-stream mapping, and process charts.	4	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
8	8.1	**Ch. 7:** Comparison of the characteristics of four types of processes -Comparison of process choices using	4	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook

		crossover chart -Process analysis tools including flow chart, value-stream mapping, and process charts.						
	8.2	**Ch. 7S**: Capacity planning: defining and calculating capacity; determining design capacity, effective capacity, and utilization.	5	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	8.3	**Ch. 7S**: Capacity planning: defining and calculating capacity; determining design capacity, effective capacity, and utilization.	5	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
9	9.1	Ch. 7S: Capacity planning: defining and calculating capacity; determining design capacity, effective capacity, and utilization.	5	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	9.2	Ch. 7S: Introduction to performing bottleneck analysis, problem solving on bottleneck analysis.	5	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	9.3	Ch. 7S: Introduction to performing bottleneck	5	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook

		analysis, problem solving on bottleneck analysis.						
10	10.1	Ch. 7S: Introduction to performing bottleneck analysis, problem solving on bottleneck analysis.	5	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	10.2	Ch. 8: Location decisions: introduction, and the quantitative factors that affect location decisions, the factor-rating method	6	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	10.3	Ch. 8: Location decisions: introduction, and the quantitative factors that affect location decisions, the factor-rating method	6	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
11	11.1	Ch. 8: Location decisions: introduction, and the quantitative factors that affect location decisions, the factor-rating method	6	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	11.2	Ch. 8: Locational break-even-analysis and center-of-gravity method for optimizing location decisions.	6	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	11.3	Ch. 8: Locational break-even-analysis and	6	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook

		center-of-gravity method for optimizing location decisions.						
12	12.1	Ch. 8: Locational break-even-analysis and center-of-gravity method for optimizing location decisions.	6	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	12.2	Ch. 9: Layout decisions: introduction, office layout, retail layout, and fixed position layout. Process-oriented layout and product oriented layout.	7	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	12.3	Ch. 9: Layout decisions: introduction, office layout, retail layout, and fixed position layout. Process-oriented layout and product oriented layout.	7	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
13	13.1	Ch. 9: Layout decisions: introduction, office layout, retail layout, and fixed position layout. Process-oriented layout and product oriented layout.	7	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook

	13.2	Ch. 9: Layout decisions: assembly-line balancing in a repetitive or product-oriented facility	7	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	13.3	Ch. 9: Layout decisions: assembly-line balancing in a repetitive or product-oriented facility	7	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
14	14.1	Ch. 9: Layout decisions: assembly-line balancing in a repetitive or product-oriented facility	7	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	14.2	Ch. 12: Inventory management: the economic order quantity, re-order point and safety stock.	8	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	14.3	Ch. 12: Inventory management: the economic order quantity, re-order point and safety stock.	8	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
15	15.1	Ch. 12: Inventory management: the economic order quantity, re-order point and safety stock.	8	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook
	15.2	Ch. 12: The production order quantity, inventory management: the quantity discounts.	8	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook

	15.3	Ch. 12: The production order quantity, inventory management: the quantity discounts.	8	Face to face	Moodle	-	Exams, Assignments, In-class discussion	Main Textbook

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
First Exam	30	x	X	
Second Exam –If any	N\A	-	-	-
Final Exam	50	x	x	x
**Class work (Exercise and participation)	5	x	x	x
Projects/reports	15		x	x
Research working papers	-	-	-	-
Field visits	-	-	-	-
Practical and clinical	-	-	-	-
Performance Completion file	-	-	-	-
Presentation/ exhibition	-	-	-	-
Any other approved works	-	-	-	-
Total 100%	100			

*** According to the instructions for granting a Bachelor's degree.**

****According to the principles of organizing semester work, tests, examinations, and grades for the bachelor's degree.**

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					
TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	1
TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	2

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					
TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	1
TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	2
TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	3

26. Course Requirements:

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

- Main textbook
- Students should have a computer, tablet, or smart phone
- internet connection

27. Course Policies:

A- Attendance policies:

- Students are not allowed to miss more than 15% of the classes during the semester. Failing to meet this requirement will be dealt with according to the university disciplinary rules.

B- Absences from exams and submitting assignments on time:

- Assignments should be submitted on time and on the course platform.
- No makeup exam will be held except for students who have a permission from the deputy dean for students' affairs

C- Health and safety procedures:

- Wearing facemask and maintaining social distancing

D- Honesty policy regarding cheating, plagiarism, misbehavior:

- Cheating and plagiarism will be dealt with according to the university disciplinary rules

E- Grading policy:

- Exams are graded on a correct/incorrect response basis
- Homework/assignments are graded on a satisfactory/unsatisfactory basis
  1. Satisfactory responses are those that reflect a high degree of understanding/application of the course material and a high degree of following the instructions of the assignment/homework (these responses will receive higher grades compared to those given to unsatisfactory responses).
  2. Unsatisfactory responses are those that reflect a low degree of understanding/application of the course material and a low degree of following the instructions of the assignment/homework (these responses will receive lower grades compared to those given to satisfactory responses)

F- Available university services that support achievement in the course:

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28. References:

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

Main textbook: Hiezer, J., Reder, P., and Munson, C., 2017. *Operations Management: Sustainability and Supply Chain Management*, 12th edition, Pearson.

B- Recommended books, materials, and media:

1. Hiezer, J., Reder, P., and Al-Zu'bi, Z., 2013, Operations Management, 1st Arab Word edition, Pearson.
2. Slack, N., Brandon-Jones, A. & Johnston, R. 2013. *Operations Management,* Edinburgh Gate, Pearson Education Limited.
3. William Stevenson, 2008, Operations Management, 10th ed., McGraw-Hill/Irwin, Boston.
4. Krajewski, Ritzman, and Malhorta, 2009, Operations Management, 9th ed., Prentice Hall.
5. Chase Richard B. Operations Management of competitive Advantage, 11th edition, McGraw-Hill.
6. Davis, Aquilano, and Chase, Fundamentals of Operations Management, 3rd edition, McGraw-Hill/Irwin.
7. Schroedor Roger G. Operations Management: Contemporary concepts and cases, 5th ed., Mc Graw-Hill, 2010.

29. Additional information:

Name of the Instructor or the Course Coordinator: ……Dr. Rima Wahid Al Hasan…	Signature: ……..……	Date: …22\02\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: ……..……