1	**Course title**	**Quality Management**
2	**Course number**	**0906551**
3	**Credit hours**	3
	Contact hours (theory, practical)	Theory 3 hours per week
4	**Prerequisites/co-requisites**	0906358 Industrial Quality Control
5	**Program title**	B.Sc. Industrial Engineering
6	**Program code**	
7	**Awarding institution**	The University of Jordan
8	**School**	Engineering
9	**Department**	Industrial Engineering
10	**Level of course**	Elective course 5th year
11	**Year of study and semester (s)**	Spring (2nd semester) 2024/2025
12	**Final Qualification**	
13	**Other department (s) involved in teaching the course**	-
14	**Language of Instruction**	English/Arabic
15	**Teaching methodology**	In-person
16	**Electronic platform(s)**	Moodle ☐Microsoft Teams ☐Skype Zoom Others Microsoft teams
17	**Date of production/revision**	27/2/2024

18 Course Coordinator:

Name: Abbas Al-Refaie
Office number: 22942
Phone number:0796622895
Email:abbas.alrefai@ju.edu.jo

19 Other instructors:

Name:
Office number:
Phone number:
Email:

Name:
Office number:
Phone number:
Email:

20 Course Description:

Leadership, customer focus, employee involvement, suppliers partnership, performance measures, tools of TQM, quality assurance systems

21 Course aims and outcomes:

1. Aims

This course aims to equip industrial engineering student with the necessary concepts, theory and skills required to understand and then apply quality assurance and total quality management concepts and tools when implementing/improving quality of products in industrial as well as service applications. Precisely, the course aims are:

- To develop understanding of international standards in quality assurance.
- To enhance student skills for implementing total quality management in practice and of the professional practice of its tools.
- To develop an understanding of process performance.
- To encourage quality management tools to all real life applications.
- To increase students' confidence in their quality management practice and their confidence to work as teams.

2. Intended outcomes

Course Learning Outcome #	After successful completion of this course, the student will be able to	SO
CLO1	understand the philosophy and core values of Total Quality Management (TQM)	7
CLO2	apply the quality international standards within an organization	2,7
CLO3	apply the environmental international standards within an organization	2,7
CLO4	apply quality improvement tools and techniques necessary for engineering practice	5
CLO5	conduct course projects in applying international standard.	7

22. Topic Outline and Schedule:

Week	Lecture	Topic	Teaching Methods*/platform	Evaluation Methods**	References
1	1-6	Quality Management Revolution	In-person	Quiz	
2-5	1-12	Quality Assurance and International Standards	In-person	Quiz	
6	1-3	Relationship between ISO 9001 and TQM	In-person	Mid/Final exam	
7-8	1-6	ISO 14001 requirements	In-person	Mid/Final exam	
9	1-3	Total Quality Management/customer focus	In-person	Final exam	
10	1-3	Levels of TQM adoption	In-person	Final exam	
11	1-3	Implementing TQM	In-person	Final exam	
12	1-3	Quality Function deployment	In-person	Quiz /Final exam	
13	1-3	Benchmarking	In-person	Quiz /Final exam	
14-16	1-9	Continual improvement techniques	In-person	Final exam	

	Week #	Topic
A brief list of topics	1	Quality Management Revolution
	2-5	Quality Assurance and International Standards
	6	Relationship between ISO 9001 and TQM
	7	ISO 14001 requirements
	8	Total Quality Management/customer focus
	9	Levels of TQM adoption
	10	Implementing TQM
	11	Quality Function deployment
	12	Benchmarking
	13-16	Continual improvement techniques

- Teaching methods include: Synchronous lecturing/meeting; Asynchronous lecturing/meeting
- Evaluation methods include: Homework, Quiz, Exam, pre-lab quiz…etc

23 Evaluation Methods:

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

Evaluation Activity	Mark	Topic(s)	Period (Week)	Platform
Quizzes	20 %	Quality Management Revolution	5	
Midterm	30%	Quality Assurance and International Standards	8-10	
		Relationship between ISO 9001 and TQM	8-10	
		ISO 14001 requirements	8-10	
Final	50%	Total Quality Management/customer focus	17	
		Levels of TQM adoption	17	
		Implementing TQM	17	
		Quality Function deployment	17	
		Benchmarking	17	
		Continual improvement techniques	17	

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

The student should bring the text book.

25 Course Policies:

A- Attendance policies: all students are expected to attend all one-line meetings. Any student with more than 15% missing classes is subject to be failed in the class.

B- Absences from exams and submitting assignments on time: all students should submit the assigned quizzes, short late submission is permissible if the student had internet issues during the exam. Final exam is expected to be on campus and all absent student are subject to the university regulation for accepting their absence excuse through the office of the assistant dean for student affairs

C- Health and safety procedures: During the exams in the University, students shall abide to health safety regulations by wearing masks/Gloves, wash hands, and distancing.

a. D- Honesty policy regarding cheating, plagiarism, misbehavior: Discuss the assignments among yourselves. This is helpful to the learning process. However, direct copying of others work will NOT be allowed or tolerated and will result in a reduction of grade.

E- Grading policy:

Quizzes and participation	:20%
Midterm	:30%
Final	:50%
Total	:100%

F- Available university services that support achievement in the course: School of engineering computer labs/Exam halls

26 References:

David Goetsch and Stanley Davis Quality Management for Organizational Excellence: Introduction to Total Quality 8th Edition
ISO 9001:2015 Standard
ISO 14001:2015 Standard

27 Additional information:

The B.Sc. in industrial Engineering program enables students to achieve, by the time of graduation the follov program learning outcome (SOs)

1	an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	6	an ability to develop and conc appropriate experimentation, analyze a interpret data, and use engineer judgment to draw conclusions
2	an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors	7	an ability to acquire and apply r knowledge as needed, using appropr learning strategies
3	an ability to communicate effectively with a range of audiences		
4	an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts		
5	an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives		

Name of Course Coordinator: Abbas Al-Refaie -Signature: *Abbas Al-Refaie* Date: 5/10/2020

Head of Curriculum Committee/Department: Signature: ----------

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

Head of Curriculum Committee/Faculty: ----------Signature: ----------

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