Course Specification
(Bachelor)

Course Title: Engineering Management
Course Code: INE4214
Program: Bachelor of Science in Industrial Engineering
Department: Industrial Engineering Department
College: Faculty of Engineering
Institution: King Khaled University.
Version: 2
Last Revision Date: *8/12/2025*

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours: (2)					
2. Course type					
A.	☐ University	☐ College	x Department	☐ Track	☐ Others
B.	x Required		☐ Elective		
3. Level/year at which this course is offered: (7/4)					
4. Course General Description:					
NIL					
5. Pre-requirements for this course (if any)**:**					
NIL					
6. Co-requisites for this course (if any)**:**					
7. Course Main Objective(s):					

- Augmentation of engineering knowledge with advanced understanding of business and management practices.
- Understand the importance of management skills to succeed in scientific or engineering enterprise management roles.
- Getting introduced to analytical skills to cover the gap between engineering and business management.

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	100
2	E-learning		

No	Mode of Instruction	Contact Hours	Percentage
3	Hybrid ● Traditional classroom ● E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	30
2.	**Laboratory/Studio**	
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)**	
Total		30

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	Understand and distinguish different management functions and skills.	K1, K2	Lectures, class discussion, Power point presentation	Midterm exams and Final exams
2.0	**Skills**			
2.1	Identify management-related problems accurately	S2	Lectures, class discussion, Power point presentation	Midterm exams and Final exams
2.2	Analyze the underlying factors contributing to problem	S2	Lectures, class discussion, Power point presentation	Midterm exams and Final exams

Code	Course Learning Outcomes	Code of PLOs aligned with program	Teaching Strategies	Assessment Methods
2.3	Formulate the problem clearly in a structured and solvable form	S2	Lectures, class discussion, Power point presentation	Midterm exams and Final exams
2.4	Present the problem in a way that facilitates the development of effective solutions	S2	Lectures, class discussion, Power point presentation	Midterm exams and Final exams
3.0	**Values, autonomy, and responsibility**			
3.1	Explain the importance of effective communication by which the organization acquires competitive advantages	V2	Lectures, class discussion, Power point presentation	Midterm exams and Final exams
3.2	An ability to recognize ethical and professional responsibilities in engineering situations.	V4	Lectures, class discussion, Power point presentation	Midterm exams and Final exams

C. Course Content

No	List of Topics	Contact Hours
1.	**Introduction to management paradigms**	**2**
2.	**Management challenges for engineers**	**4**
3.	**The functions of engineering management**	**4**
4.	**Organizing**	**4**
5.	**Leading**	**4**
6.	**Controlling**	**4**
7.	**Creativity and innovation**	**4**
8.	**Ethics**	**2**
9.	**Engineering management in the new millennium**	**2**
Total		**30**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes & Assignments	After completing some specified topics	30%
2.	Midterm- 1	5	15%
3.	Midterm- 2	10	15%
4.	Final exam	16	40

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Engineering Management: Meeting the Global Challenges, 3rd Edition Authors: C. M. Chang Publication Year: 2022 Publisher: CRC Press ISBN: 9780367512867
Supportive References	
Electronic Materials	Videos
Other Learning Materials	

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	**Classroom**
Technology equipment (projector, smart board, software)	**Projector or Smart board**
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students/ Faculty /Head of department	Indirect assessment based on survey (Course evaluation

Assessment Areas/Issues	Assessor	Assessment Methods
		survey/Student's surveys, Faculty surveys etc…) Faculty Performance Profile
Effectiveness of Students assessment	Students/ Independent faculty	Indirect assessment based on survey (Course evaluation survey/ Student's surveys), Assessment is checked by an independent faculty.
Quality of learning resources	Student and faculty	Indirect assessment based on survey (Evaluation of IT and Websites, learning resources surveys)
The extent to which CLOs have been achieved	Quality Committee	Direct through Rubrics analysis
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	REVIEWED BY CURRICULUM COMMITTEE APPROVED BY QUALITY COMMITTEE
REFERENCE NO.	9-6-47
DATE	**25/6/1447**