

University of Jordan
Chemical Engineering Department
Management for Chemical Engineering – 0905401



Course Information

Catalogue: ChE 0905401 – Management for Chemical Engineering

Prerequisites: ChE 0905212 – Chemical Engineering Principles II, and general knowledge of engineering and willingness to learn. Knowledge in MS Project is a plus.

Semester: Spring 2017/2018 (172)

Lecture: Sun, Tue, Thu. 14:00-15:00, CHE Al-Tahir Hall.

Office hours: TBA *or by appointment*.

Course website: elearning.ju.edu.jo

Instructor

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Course Details

Description and Topics Covered

Theories of management, Forecasting, organization of chemical engineering projects, breakeven analysis, project evaluation and cashflow diagrams. Critical path method, decision trees and alternatives, inventory control.

Objectives

1. Understand current and historical management theory and practice.
2. Have practiced their problem solving skills and learned analytical thinking skills.
3. Have practiced and strengthened their general management skills including the ability to plan, organize, control, deal with ambiguity, lead, and communicate effectively.

Intended learning Outcomes

After the completion of this course; the students are expected to have achieved the following learning outcomes (ILOs):

1. Be able to know, comprehend, apply, analyze, synthesize and evaluate the basic principles of the fundamentals of managing technical organizations.
2. Be prepared for further study in the area of engineering technology management.
3. Be able to identify and apply appropriate management techniques for managing contemporary organizations.
4. Have an understanding of the skills, abilities, and tools needed to obtain a job on a management track in an organization of their choice.

Recommended references

1. Schermerhorn, J.R., 2009. Management, 11th Edition. New York, NY: John Wiley & Sons, ISBN 9780470917510
2. Maxwell, John C., 1993. Developing the Leader Within You. Nashville, TN: Thomas Nelson, ISBN 840767447.
3. William Strunk, Jr. and E. B. White, The Elements of Style, 4/E. Longman (Pub.) ISBN: 0-205-30902-X OR William Strunk, Jr., E. B. White, and Maira Kalman, Illustrator, The Elements of Style, Illustrated. The Penguin Press 2005 ISBN 1594200696.

Evaluation

Evaluation Tool	Weight	Date
Midterm Exam	30	Will be announced by the department 7 th to 9 th week
Projects (include presentation)	15	Will be arranged between the 12 th and 14 th weeks
Popup Quizzes	5	Expect 7-8 quizzes
Instructor evaluation	10	Depends on your participation and added-value to the course
Final Exam	40	Will be announced by the Registrar

Relationship to Program Outcomes (%)

a	b	c	d	e	f	g	h	i	j	k
10		5	10	10	5	10	5		5	5

Relationship to CHE Program Objectives

PEO1	PEO2	PEO3	PEO4
√	√	√	√

Document Control

Prepared by	Prof. Fawaz Sweis
Last Modified	12/09/2016(Dr. Al-Matar)
Current Version	12/9/2016 (Dr. Al-Matar)

ABET Criteria: Outcomes and Assessment

Engineering programs must demonstrate that their graduates have

- a. An ability to apply knowledge of mathematics, science, and engineering
- b. An ability to design and conduct experiments, as well as to analyze and interpret data
- c. An ability to design a system, component, or process to meet desired needs
- d. An ability to function on multi-disciplinary teams
- e. An ability to identify, formulate, and solve engineering problems
- f. An understanding of professional and ethical responsibility
- g. An ability to communicate effectively
- h. The broad education necessary to understand the impact of engineering solutions in a global and societal context
- i. A recognition of the need for, and an ability to engage in life-long learning
- j. A knowledge of contemporary issues
- k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice