

IE1035 | ENGINEERING MANAGEMENT Fall 2023

COURSE INFORMATION

Course name	Engineering Management
Course number	IE1035
Section	02
Class time	Tuesday 13:50-16:25
Class location	120, Zone 1
Prerequisites	IE junior status or instructor's permission

INSTRUCTOR

Name	Yuanchen Fang		
Email	y.fang@scu.edu.cn	Office hour	Thursday 16:30 — 18:30
QQ	521029579	Office	3-319B

TEACHING ASSISTANTS

Name	Zihan Abel Zhuang	Name	Hanze Richard Qin
Email	1661594105@qq.com	Email	3300372719@qq.com
TAs will be working together for both sections.			

COURSE DESCRIPTION

This course focuses on the management theory which can be applied to engineering and technical organizations. Specific topics include: management process and functions (leading, planning, organizing, and controlling); technology management (research and development, design, production, and operation); project management; managing technical people; and other contemporary management concepts.

COURSE OBJECTIVES

- Understanding of what the importance of engineering management in technical organizations is and how the well-managed engineering organization will lead to competitive advantage of a company in the market.
- Familiarization of basic principles of engineering management.
- Development of skills and ability of applying management concepts and techniques to work and manage in an engineering environment.
- An ability to function on multi-disciplinary teams. An understanding of professional and ethical responsibility. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and social context. A recognition of the need for, and an ability to engage in life-long learning. A knowledge of contemporary issues.

COURSE MATERIALS

Textbook	A SEA	Morse, L.C. and Babcock, D.L. (6th Edition, 2014), Managing Engineering and Technology, Pearson Higher Education, Inc., New York.
Reference	Lecture slides and notes provided in class	

GRADING

Total	105%	5% for extra points; Total grade given will not exceed 100	
	2370	calculator; closed electronics.	
Final Exam	23%	120 minutes; In final week; Open paper-based materials; open scientific	
LAGIII		electronics.	
Exam		introduced; Open paper-based materials, open scientific calculator, closed	
Midterm		90 minutes; One week after "Management Functions – Decision Making" is	
		will be given in separate handouts when assigned.	
Project	15%	presentation and discussion, and a PowerPoint slide show; Requirements	
	25%	Work in groups; Submission includes a technical report, an in-class progress	
		posted on Bb by TAs.	
		readable format; Detailed requirements for homework submission will be	
Homework		essay style assignments, must be typed and presented in a professional and	
		work and complete calculation steps for each problem; For case studies or	
		two, or three weeks depending on the difficulty; For problems, show all	
		Approximately 5 assignments; Individual work or group work; Due in one,	
		will be given before the participations start.	
Participation	25%	tasks, grades are given based on the quality of the answers; Grading rules	
Class		preparation, etc.; For some tasks, get full mark for participation; For other	
		In-class discussion, exercises, group work, games, checking class	

- No makeup opportunity for any missing exam, homework or class participation except for documented medical reasons
- Late homework or project will not be accepted
- Students unable to attend classes are responsible for obtaining class announcements and lecture contents

TENTATIVE SCHEDULE

Week	Date	Topic	Reading
1	Sep 5	Course Introduction; Introduction of Engineering Management	Textbook Chapter 1 & 13
2	Sep 12	Management Functions Leading	Textbook Chapter 3
3	Sep 19	Management Functions Leading	Textbook Chapter 3
4	Sep 26	Management Functions – Planning	Textbook Chapter 4
5	Oct 3	(Holiday)	
6	Oct 10	Management Functions – Planning	Textbook Chapter 4
7	Oct 17	Management Functions – Decision Making	Textbook Chapter 5
8	Oct 24	Management Functions – Decision Making Textbook Chapter 5	
9	Oct 31	Midterm Exam (This is a tentative schedule. The midterm will be one week after the introduction of "Management Functions – Decision Making" is finished.)	
10	Nov 7	Management Functions – Organizing	Textbook Chapter 6 & 7
11	Nov 14	Management Functions – Organizing	Textbook Chapter 6 & 7
12	Nov 21	Management Functions Controlling	Textbook Chapter 8
13	Nov 28	Management Functions Controlling	Textbook Chapter 8
14	Dec 5	Managing Technology – R&D, Design	Textbook Chapter 9 & 10
15	Dec 12	Project progress presentation Managing Technology —Planning Production	Textbook Chapter 11
16	Dec 19	Managing Technology – Production Operations, Project Planning and Acquisition	Textbook Chapter 12 & 14
17	Dec 26		
18, 19)	Final Exam	

SPECIAL ACCOMMODATIONS

If you have specific physical, psychiatric, or learning disabilities that you believe may require accommodations for this course, please meet with me after class to discuss appropriate adaptations or modifications that might be helpful for you.