



### INSTRUCTOR



Yuanchen Fang



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521029579



Tuesday 16:30-18:00



TBA

### TEACHING



Cheng (Tricia) Zhou



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### ASSISTANT



Xiang (James) Li



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Monday 16:30-18:00



TBA

### CLASS MEETING

Tuesday 8:15-11:00 | 114, Zone 1

### PREREQUISITES

IE junior status or instructor's permission

### COURSE DESCRIPTION

This course focuses on 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; engineering career management, and/or 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

### COURSE MATERIAL

(1) Textbook



Morse, L.C. and Babcock, D.L. (6th Edition, 2014), Managing Engineering and Technology, Pearson Higher Education, Inc., New York.

(2) Lecture notes

Slices and notes provided in class

### APPLICABLE ABET OUTCOMES

- 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



### GRADING

Class Preparation	5%	For some classes, self-learning and previews are needed before class. Read and learn the assigned materials as required. Three students will be randomly called on to answer assignment questions to test for the quality of preparation. All students will be graded based on the best performance of these three students. If the student named is absent, he/she will lose 1 point in his/her total grade.
Class Participation	25%	In-class discussion, exercises, group work, games, etc.; For some tasks, get full mark for participation; For other tasks, grades are given based on the quality of the answers; Grading rules will be given before the participations start.
Homework	25%	Approximately 5 assignments; Individual work or group work; Due in one, two, or three weeks depending on difficulty; Collected at the beginning of class on the due date; For problems, show all work and complete calculation steps for each problem; For case studies or essay style assignments, must be typed and presented in a professional and readable format in 11 pt. font with 1.5 line spacing; Detailed requirements for homework submission will be posted on Bb by TAs.
Business operation simulation	20%	Work in groups; Submission includes a technical report, an in-class presentation and discussion, and a PowerPoint slice show; Requirements will be given in separate handouts when assigned.
Final Exam	30%	2 hours; In final week; Open paper-based materials; open scientific calculator; closed electronics including but are not limited to computers, phones, tablets, ...
<b>Total</b>	<b>105%</b>	<b>5% for extra points; Total grade given will not exceed 100</b>

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

### ACADEMIC HONESTY

Plagiarism, cheating, and any form of unauthorized collaboration will not be tolerated and will be handled in accordance with University policies. Penalties for cheating and plagiarism may include but not limited to: zero credit on the work, student placed on probation, submission of judicial findings in the students' permanent record, and jeopardy of the students' status in the program.

Unacknowledged direct copying from the work of another person, or the close paraphrasing of somebody else's work, is called plagiarism and is a serious offence, equated with cheating in examinations. This applies to copying both from other students' work and from published sources such as books, reports, journal articles, websites.

When the original statement is still identifiable and has no acknowledgement, it is plagiarism. A close paraphrase of another person's work must have an acknowledgement to the source. It is not acceptable for you to put together unacknowledged passages from the same or from different sources linking these together with a few words or sentences of your own and changing a few words from the original text: this is regarded as over-dependence on other sources, which is a form of plagiarism.



### TENTATIVE SCHEDULE

Week	Date	Topic	Reading
1	Aug 30		
2	Sep 6	Course Introduction; Introduction of Engineering Management	Textbook Chapter 1 & 13
3	Sep 13	Management Functions -- Leading	Textbook Chapter 3
4	Sep 20	Management Functions -- Leading	Textbook Chapter 3
5	Sep 27	Management Functions – Planning	Textbook Chapter 4
6	Oct 4	(Holiday)	
7	Oct 11	Management Functions – Planning	Textbook Chapter 4
8	Oct 18	Management Functions – Decision Making	Textbook Chapter 5
9	Oct 25	Management Functions – Organizing	Textbook Chapter 6 & 7
10	Nov 1	Management Functions – Organizing Management Functions -- Controlling	Textbook Chapter 6 & 7 Textbook Chapter 8
11	Nov 8	Management Functions -- Controlling Business operation simulation	Textbook Chapter 8
12	Nov 15	Managing Technology – R&D	Textbook Chapter 9
13	Nov 22	Managing Technology -- Design	Textbook Chapter 10
14	Nov 29	Managing Technology – Planning Production	Textbook Chapter 11
15	Dec 6	Managing Technology – Production Operations	Textbook Chapter 12
16	Dec 13	Managing Projects – Project Planning and Acquisition	Textbook Chapter 14 & 15
17	Dec 20	Business operation simulation	
18	Dec 27		
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.