

ISE 544 – Engineering Team Design (3 Units) – SECTION 31504D & 31704D
Spring Semester 2017
Tuesdays 6:40 pm - 9:20 pm
Room: RTH105

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Objective: This course provides a framework for understanding and improving the effectiveness of engineering team management. The course will explore theory from disparate areas, including organizational behavior, engineering, and business management. Several aspects of teamwork will be examined, from team formation and team dynamics to decision-making and negotiation.

Text Books (Required):

1. Lawrence Holpp, Managing teams, The McGraw-Hill Companies. ISBN 0-07-071865-2
2. Thompson, L. L., Making the Team: A Guide for Managers, Fifth Edition. Prentice Hall. ISBN-13: 978-0132968089 & ISBN-10: 0132968088
3. Lencioni, P., The Five Dysfunctions of a Team: A Leadership Fable. 2002: Jossey-Bass. ISBN: 0787960756

Course Material: Text Book, all topics discussed in lecture by the instructor, guest speaker (if any), other students, and the all related handouts.

Study Guidelines: The lectures and class discussions are not limited to reading assignments. Merely reading the text book does not guarantee students' successful completion of the course. The instructor's Class notes are not sufficient either and all students are responsible to take their own notes in the class and use them to study and elevate their understanding of the reading materials and the class discussions.

Performance Evaluation:

1. Class Participation (Individual and mini-projects)	110
2. Homework & Case Studies (3 Homework assignments and 3 Case Studies)	240
3. Exams (1 in-class MC, 1 take-home descriptive, optional final)	400
4. Term Project (Shark Tank, Face-Off, the End Game)	250
<hr/> Total	<hr/> 1000

* All written communications with the Instructor or the Teaching Assistant must be through emails. Emails must be short and to the point and they are normally answered in two business days. We will not answer the questions that students post on the DISCUSSION BOARD. This medium is for course-related discussions among the students only.

1. **CLASS PARTICIPATION consists of two portions:**

PART 1 – Individual participation (80 POINTS)

- ON CAMPUS students are evaluated based on the level and the quality of their participation in class discussions. While we do not take attendance in this course, students who miss the lectures will also miss the opportunity to improve their scores through class participation.

NOTE:

PHYSICAL ATTENDANCE → CLASS PARTICIPATION

BUT:

PHYSICAL ATTENDANCE ≠ CLASS PARTICIPATION

- DEN students are primarily evaluated based on their assessment of the class discussions, posted on the **discussion board**, under the appropriate lecture forum, **within one week of the lecture**. They are also encouraged to participate live in class discussions and will get credit for that. Text messaging through WebEx is not the most effective way of communication, but it will be accounted for as practically as possible, if a student has no other option. Den students who are able to physically join the class, are strongly encouraged (but not required) to do so for all sessions (see part 2).
- ALL STUDENTS SHOULD **AVOID** USING THE DISCUSSION MEDIA (D2L, WEBEX, ETC.) TO ASK QUESTIONS FROM THE INSTRUCTION TEAM OR TO DISCUSS PERSONAL/NON-COURSE RELATED TOPICS (EXCEPTION: THE WELCOME PAGE OF THE COURSE SITE IS DESIGNED FOR POSTING PERSONAL INFORMATION). ALL QUESTIONSS SHOULD BE **EMAILED** FIRST TO THE TA AND THEN, IF NOT RESPONDED TO IN A TIMELY MANNER, TO THE INSTRUCTOR.
- The Course instructor will be the sole judge of students' level of individual participation.

PART 2 – Workshops (30 POINTS)

We will have in class mini-project (workshops) frequently (hopefully every week). After the workshop, one or two teams (voluntarily or by instructor's choice) will discuss the mini-project and the class will debate about their findings:

- Students who are members of the presenting team will be evaluated based on the quality of their presentation and, specifically, their ability to answer questions effectively.
- In addition to the instruction team, the audience will also evaluate the presenting team(s) and provide the results to the instructor, anonymously. The presenting team will not know the audience's evaluations, but the overall score.
- Audience participation will be accounted for as their individual participation (part 1) and will be evaluated solely by the instructor.
- DEN students who are unable to join at least one workshop for **specific** reasons (time zone difference, work time conflict, etc.) **shall inform the instructor by session 2**. Upon the instructor's approval, these students will be given a separate assignment with the same value (30 Points) in lieu of part 2 class participation.
- Note: (DEN or On-Campus) students are NOT required to participate in ALL classes. If you give yourself the opportunity to participate in one workshop and its presentation, it will account for your Part 2 class participation. Clearly, the more class attendance, the more opportunity for individual class participation.

2. **HOMWORK ASSIGNMENTS** consist of **3 homeworks** and **3 case studies**. You will be expected to read the case study **individually**, write a report on it, and be prepared to discuss the case in class. One week after a case study report is submitted, it will be discussed in the class. After case submittal (and **ONLY AFTER**) DEN students may post their comments on the case study via DEN Discussion Board, on that week’s module (like any other discussion topic for the week). **CASE STUDIES MAY NOT BE DISCUSSED BEFORE SUBMISSION DEADLINE.** The HOMEWORKS and CASE STUDIES due dates are shown in the next page. **Homeworks and case studies points are distributed as follows:**

3 Homeworks	3@30 = 90
3 Case Studies	3@50 = 150
Total Homework & Case Studies	240

3. ALL INDIVIDUAL ASSIGNMENTS MUST BE PERFORMED **INDIVIDUALLY**, NO “TEAMWORK” ALLOWED HERE! While it is inevitable to answer some “definition” questions using book words (e.g. “what is the definition of Critical Path Method?”), students must attempt to use their intellect and answer the questions in their own words. In case of necessity, appropriate quotation is required. Students who miss the deadlines and submit homeworks and case studies up to one week late, will be graded based on 80% of that assignment total points. No assignment will be accepted afterwards.
4. **THREE EXAMS** will be given on with the following points distribution:

EXAM #1 (1 Hour – In Class)	100
EXAM #2 (Take-Home)	200
<u>FINAL EXAM (Optional)</u>	<u>100</u>
Total EXAMS	400

The exams will cover the material presented up to and including the preceding lecture. Points will be assigned to each section of the exam. Partial credit will be awarded according to work shown. No re-takes will be allowed. No make-up exam will be given.

5. Students start working on their **TERM PROJECT** after SESSION 3, the project criteria and its grading structure will be explained in SESSION 3. Every two teams will be working on one project and they will be challenged for their proposals in SESSION 5 (the Shark Tank experience) where the students get to “invest” in the other teams’ projects (details to be explained in session 3). The pair of the teams who are the winners of the Shark Tank experience will have the opportunity to work on a real industry team assigned by the instructor and will have a face-off session with their competing team on SESSION 11. Final presentations (the Endgames) are scheduled for the last or the last two sessions of the class, depending on the class size (for smaller class size, the extra session will be used for a real-life, real-time case study). **ALL PROJECT REPORTS ARE DUE ON Nov. 28), AT THE END OF THE CLASS.**
6. **LINES OF COMMUNICATION:**
- All students **must** follow the communication protocol set forth by the Instruction team. Assignments that are supposed to be posted on the course site will NOT be graded if submitted via other media (email, hardcopy, etc.), unless specifically and exceptionally agreed, in advance.

- Assignments must be submitted in the exact format instructed by the TA and/or the instructor. In cases of discrepancy, the instructor's guidelines supersede. Assignments that do not follow submittal guidelines (File type, naming structure, content format, etc.) will NOT be graded.
- All students are responsible for proper communication and for timely transfer of their assignment files. All students to make sure all their communication lines are open and they are able to properly upload their files, during the FIRST WEEK of the semester. In the exceptional case of possible glitch in the DEN system, IF IT CAN BE PROVEN, a student may submit the assignment by email. In this case, the "Date Created" attribute of the submitted file will be considered as the submittal date.
- All students are responsible to have proper training with the D2L system. If you need to schedule a training please contact DEN staff directly (or through the course TA) to arrange for a training session as soon as possible.

All due dates are provided in the next page: "Assignments & Due Dates". All students must take the exams on the exam dates and times. Exceptions only include special cases such as sickness, time zone difference (for DEN students), or such unavoidable circumstances. **PLEASE DO NOT SCHEDULE ANY TRIPS ON THE EXAM DATES. PERSONAL OR BUSINESS ENGAGEMENTS DO NOT JUSTIFY EXAM DATE & TIME CHANGES.**





Final Grades:

Course FINAL GRADES will be determined by the distribution of point totals for the class. "Natural groupings" will be used to assign letter grades. The highest scoring group will receive A's, the next group is the A-'s, and so on. A single point will not be the difference between any two letter grades. A "gap" must exist to create a grade boundary. If there are no gaps, everyone could get A's!

THE GRADING PROCESS WILL BE EXPLAINED IN DETAILS IN THE SECOND LECTURE. STUDENTS ARE RESPONSIBLE TO UNDERSTAND THE PROCESS CLEARLY AS THEIR ACTUAL PERFORMANCE MAY DIFFER FROM THEIR PERCEIVED PERFORMANCE WHICH IS CONVENTIONALLY BASED ON PERCENTAGES ONLY.

THIS IS A QUALITATIVE MANAGEMENT COURSE AND STUDENTS PERFORMANCE ASSESSMENT IS SUBJECT TO THE INSTRUCTOR'S JUDGEMENT. EACH STUDENT'S PERFORMANCE DATA (**TACIT INFORMATION**) COMBINED WITH THE INSTRUCTOR'S INTUITIVE ASSESSMENT OF HIS/HER LEVEL OF EFFORT AND LEARNING EXPERIENCE (**IMPLICIT INFORMATION**) WILL DETERMINE THAT STUDENT'S OVERALL GRADE. ULTIMATELY, THE INSTRUCTOR WILL BE THE SOLE JUDGE OF ALL STUDENTS' INCREMENTAL AND FINAL GPA'S.

Tentative Schedule, Assignments and Due Dates¹:

Session	DATE	TOPIC	ASSIGNMENTS DISTRIBUTION	ASSIGNMENTS DUE	READING ASSIGNMENT
1	01/10	Introduction: INDIVIDUALS Versus TEAMS			Handout Thompson Ch.1
2	01/17	Team formation Team performance Initial Teams Formation	HW #1 Case #1		Thompson Ch.s 2&4 Holpp Ch.1
3	01/24	Teamwork Culture Explain Term Project Criteria	Project Proposals due in 2 weeks		Thompson Ch. 5 Holpp Ch.2
4	01/31	Communication & Collective Intelligence Finalized Teams Formation	HW #2 Case #2	HW #1 (30 points)	Thompson Ch. 6 Holpp Ch. 4
5	02/07	The Shark Tank Experience!		Project Proposals Case #1 (50 points)	
6	02/14	Competition & cooperation Cohesion & Conflict Case Study #1 Discussion		HW #2 (30 points)	Thompson Ch.s 8&12 Holpp Ch.10
7	02/21	Human Resource Practices (Exam #1 – 100 Points)	HW #3 Case #3	Case #2 (50 points)	Thompson Ch.3 Holpp Ch.12, Handout
8	02/28	Team Leadership Case Study #2 Discussion			Thompson Ch. 11 Holpp Chs 7&8, 9&11
9	03/07	Decision making & Problem Solving		HW #3 (30 Points)	Thompson Ch. 7 Holpp Ch. 8
N/A	03/14	SPRING BREAK!			
10	03/21	Team Negotiation	Take-Home Exam #2 (200 Points)		Thompson Ch. 7 Holpp Ch. 8
11	03/28	Term project The Face-Off Experience!			
12	04/04	1. Creativity 2. Leadership & Management lessons from Chaos Theory		Case #3 (50 points)	Thompson Ch. 9 Handout
13	04/11	Case Study #3 Discussion DEN Discussion (if applicable) Open Discussion & Conclusion		Exam #2	
14	4/18	Term Project Presentations			
15	4/25	Term Project Presentations			
	05/09	Final Exam - Optional (100 Points)	In Accordance with USC Final Examinations Schedule Guideline: http://classes.usc.edu/term-20171/finals/		

¹ Due to the continuity and integrative nature of the content of this course, lectures and discussions may be expanded/reduced/relocated as the semester progresses and the class needs and abilities are better identified

Outreach DEN Students

This course is conducted in outreach format, meaning, it is available to off-campus students via video recording and streaming. Students in on-campus or off-campus receive the same instruction and perform the same tasks.

Language Support Systems

USC provides support for students who need help with scholarly writing. Students whose primary language is not English should check with the American Language Institute <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students.

Emergency Services

If an officially declared emergency makes travel to campus infeasible, USC Emergency Information <http://emergency.usc.edu> will provide safety and other updates, including ways in which instruction will be continued by means of D2L, blackboard, teleconferencing, and other technology.

Statement for Students with Disabilities

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to the professor(s) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

Academic Integrity

USC seeks to maintain an optimal learning environment. The Department of Industrial and Systems Engineering adheres to the University's policies and procedures governing academic integrity as described in Scampus, the Student Guidebook. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. Scampus, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A. Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at <http://www.usc.edu/student-affairs/SJACS>. All students are expected to understand and abide by these principles, as they will be strictly enforced throughout the semester.

Note: This syllabus is subject to change.