**ISE 515 – Engineering Project Management (3 Units)** 

Summer Semester 2018 Mondays 6:00 pm - 9:10 pm

Room: OHE 100C

Instructor: Ali Nowroozi Teaching Assistant: TBD

Office: GER309A Office: TBD Hours: Mondays 1:00 pm – 3:00 pm Hours: TBD

(by appointment ONLY)

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**Objective:** This course provides a framework for understanding project management basics, its tools & techniques, its behavioral aspects, and its place within the organizational context. You will develop a structured knowledge of project management from a managerial perspective (not just mechanistic, and not just organic, but an integrated view). We will go through the project life cycle, from inception to completion. Through the course assignments, case studies, and projects, we will get familiar with project manager's day to day challenges and paradoxes and how he/she can use the tools and techniques learnt in this course, as well as developing proven leadership attitudes, to better lead and manage the project. You will learn, as a project manager, how to effectively play the chaos game between three primary project objectives; scope, cost, and schedule, as well as other less tangible, less immediate, but equally (or sometimes more) important objectives, and align them with the corporate strategic objectives and grand vision.

#### **Text Books & Software:**

**Required:** Project Management: A Managerial Approach, 9th Edition, Meredith, Jack R. and Mantel Jr., Samuel J – ISBN-13: 978-1118947029 & ISBN-10: 1118947029

#### **Optional:**

- Project Management Lite
- A Guide to the Project management Body of Knowledge, 5th Edition, (PMBOK Guides) [paperback], Project Management Institute (author) ISBN-13 978-1933890517
- Project Management Tools and Techniques, A Practical Guide, by Carstens, Richardson and Smith. Publisher: CRC Press; ISBN: 978-1-4665-1562-8

#### Software: Microsoft ® Project: The course will utilize Microsoft Project software.

Microsoft® Project is available at the ISE laboratory computers in GER 309 (open M-F 8 to 5) and other USC computer labs (<u>ECC, ITP, RTH, 109, RTH 115</u>). You can access the USC network remotely and run the program (see the instructions attached)

Note: This is not a software training course and the students are expected to learn this (and/or other needed software packages) on their own. Although, as a courtesy, we will try to arrange for as many tutoring session by the TA as possible, limitations of these trainings shall not constraint the students from learning the program to the extent needed to complete their course assignments.

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

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

**Study Guidelines:** The lectures and class discussions are <u>not</u> limited to reading assignments. Merely reading the text book does not guarantee students' successful completion of the course. The instructor's Class notes are <u>not</u> 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 & Workshops | 100 (10%)   |
|----|---------------------------------|-------------|
| 2. | Homeworks                       | 300 (30%)   |
| 3. | Exams                           | 300 (30%)   |
| 4. | Term Project                    | 300 (30%)   |
|    | Total                           | 1000 (100%) |

## 1. CLASS PARTICIPATION:

## **Class Participation**

# 100 Points

ON-CAMPUS students are expected to attend and participate in as many class discussions
as possible. While we do not take attendance in this course, students who will miss
multiple sessions will also miss the opportunity to improve their learning through class
participation and could deteriorate their class participation grade.

New: To better quantify students' class participation, I am incorporating a new method: I will ask a question about either previous lecture or the reading assignments for the upcoming lecture. Students will have 5 minutes to digest the question and then we will have a 10 minutes open discussion. Students who provide rich input to the discussion will be recognized and will be awarded 10% of their class participation points.

- DEN students can make comments on the lectures and class discussions<sup>1</sup>, using the **discussion board**, under the appropriate lecture forum, **within one week of the lecture**. They are also encouraged to participate <u>live</u> in class discussions and will get credit for that. Text messaging through WebEx is not the most effective way of communication, but such comments will be addressed <u>as practically as possible</u>. DEN students who are able to physically join the class, are strongly encouraged (but not required) to do so.
- Most classes start or end with a Workshop. Students' contribution to the discussion following the workshops is a measure of performance for their class participation. DEN students who have limitations an unable to join these workshops can comment on them through the Discussion Board.
- For the DEN students, Virtual Teams will be formed in which they will be able to discuss the mini-project with their Teammates and then present their findings through the WebEx.
- 2. <u>3 Homworks (100 Points each)</u> will be assigned as shown in the attached table. You will be expected to complete these assignments <u>individually</u>. Some homework assignments could be in the form of case studies where you analyze and report on a real-life (or simulated) situation. DEN students may post their comments on these cases via DEN Discussion Board, after the

<sup>1</sup> All students to <u>avoid</u> using the discussion board for <u>questions from the instruction team</u> or to discuss personal/non-course related topics (exception: the welcome page of the course site is designed for posting personal information). All such questions should be emailed first to the TA (CP) and then, if not responded to in a timely manner, to the instructor.

Case Study <u>final submittal deadline</u>. The homeworks and case studies <u>may not</u> be discussed before the final submission deadline (including the grace period with penalty, see below). The assignments due dates are shown in the attached schedule.

All homework assignments must be performed <u>individually</u>, no "teamwork" allowed here! Students must attempt to use their intellect, analyze the situation comprehensively, and answer the questions in their own words. In case of necessity, appropriate quotation is required. Merely repeating the lecture and text book materials without proper and direct connectivity to the case study will not earn <u>any</u> points. The 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's total points. No assignment will be accepted afterwards.

3. **Two Exams** will be given on with the following points distribution:

| MIDTERM (Take-Home)   | 150        |
|-----------------------|------------|
| FINAL EXAM (Optional) | <u>150</u> |
| Total EXAMS           | 300        |

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.

4. The <u>Term Project</u> criteria and its grading structure will be explained in SESSION 3 and students should start working on their projects after that. Term project discussions are scheduled for the last 2 sessions of the class. Teams (and individuals within teams) will be evaluated by the instructor, and the class, based on the quality of their work, their ability to present and educate the audience, and their ability to rationalize and defend their conclusions. <u>All members</u><sup>2</sup> of the presenting team must contribute to the discussion at the final presentations and to the Q&A. Ample time will be provided for Q&A.

# 5. <u>LINES OF COMMUNICATION:</u>

• All students <u>must</u> 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.

<sup>&</sup>lt;sup>2</sup> DEN students who are unable to participate in their team presentation due to justifiable restrictions (time zone difference, conflict with work-hours, etc.) must inform the instruction team by session 4 and get his approval and must provide recording of their presentation to a teammate to present. Any student's absence in the final presentation without coordination with the instructor, and his approval, will significantly impact the student's individual grade in term project.

• 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 combined with the instructor's intuitive assessment of his/her level of effort and learning experience will determine that student's overall grade. Ultimately, the instructor will be the sole judge of all students' incremental and final GPA's.

# **Assignments and Due Dates:**

| Session | DATE  | TOPIC  | ASSIGNMENTS<br>DISTRIBUTION                                   | ASSIGNMENTS<br>DUE                   | READING<br>ASSIGNMENT                           |
|---------|-------|--|---|--------------------------------------|---|
| 1       | 05/21 | Course Management Introduction to Project Management Strategic Management & Project Selection  |   |                                      | Chapter 1<br>Chapter 2                          |
|         | 05/28 | MEMORIAL DAY HOLIDAY   | Homework #1   |                                      |   |
| 2       | 06/04 | Project Manager, Conflict Management & Negotiation Term Project Teams formation  |   |                                      | Chapter 3, Chapter 4                            |
| 3       | 06/11 | The Project in the Organizational Structure Structuring the Project: WBS & OBS Term Project Guidelines   | Homework #2   | Homework #1<br>(100 points)          | Chapter 5<br>Chapter 6<br>(pp. 221-249)         |
| 4       | 06/18 | Budgeting: Estimating costs  | Take-Home<br>Midterm<br>(150 Points)                          | Project Selection<br>Report          | Chapter 7 (pp. 285 - 308)                       |
| 5       | 07/02 | Scheduling & Resource allocation   | Homework #3   | Homework #2 (100 points)             | Chapters 8 & 9<br>(pp. 335-357 &<br>pp 387-433) |
| 6       | 07/09 | Risk Planning & Management<br>Project Planning Presentation  |   | Take-Home<br>Midterm<br>(150 Points) | Chapters 6-9<br>(remaining parts)               |
| 7       | 07/16 | Project Controls & Auditing Project Termination Initiation & Planning Presentation A Glimpse of the contemporary Project Management (Iterative, Adaptive, and Extreme) |   | Homework #3<br>(100 points)          | Chapters 10, 11, 12, 13                         |
| 8       | 07/23 | Term Project Discussion<br>(Teams 1-4)   |   |                                      |   |
| 9       | 07/30 | Term Project Discussion<br>(Teams 5-8)   |   |                                      |   |
| 10      | 08/06 | Final Exam – Optional<br>(150 Points)  | In Accordance with USC Final Examinations Schedule Guideline: |                                      |   |

## **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.