Course Syllabus – Updated 1/31/2017

Industrial and Systems Engineering (ISE)

ISE 515: Engineering Project Management (3 units)

[Note: Due to administrative processes, this syllabus is subject to change. It is the student's responsibility to verify with the instructor regarding any updates.]

Applying industrial and systems engineering skills to problems drawn from industry, while working in teams of ~3-7 students. Teach project management skills and provide direct experience in managing and executing a group project.

Semester:	Spring 2017
Course Section:	31515D / 31705D
Lecture Time:	Monday, 18:40 – 21:20
Location:	OHE 100B
Instructor:	Kazuo "Kaz" Takeda ktakeda@usc.edu
Office:	Location: GER 309A
	Phone Meetings: (213) 740-0867
	** For emergencies only: 714-451-6331**
	Hours: By appointment for face to face meetings from 17:15 – 18:15 prior any of our scheduled session days. Due to office space size, if I am not in GER 309A, you may often locate me at Tutor Café. Other virtual meetings on other times and dates can be arranged by appointment only using contact information provided. Note that GER doors may self-lock at 17:00 which may require you to call on arrival to gain entrance.
Teacher Assistant (TA):	Kirthana Kumar kirthank@usc.edu Cell: 323-614-5090
Office:	Hours: Friday, 13:00 – 15:00 (OHE 310U)
	Responds to Desire to Learn (D2L) Discussion topics shared with Professor. Email for personal issues and assignment grade questions
	Response to emails within 24 hours.
Required Textbooks:	Title: Project Management: A Managerial Approach
	Textbook Edition #: 9th
	Author: Meredith, Mantel, Shafer
	Publisher: Wiley
	ISBN: 13 9781118947029
	Title: Project Management Lite
	Textbook Edition #: 10/22/12
	Author: Craig
	Publisher: CreateSpace Independent Publishing Platform
	ISBN: 978-1478129226

Course Readings: This course will rely primarily on lecture materials, assigned readings and additional documents will be provided through the class website or through the USC electronic library system.

Required Course Articles:
(Students are responsible to retrieve these articles from our D2L site)

What Makes a Leader?
Goleman, Daniel
Harvard Business Review, Jan 2004, Vol. 82, Issue 1, pg. 82-91

Required Software: Microsoft Project, Excel, PowerPoint
Copies of Microsoft Project can be downloaded at
https://e5.onthehub.com/WebStore/Welcome.aspx?ws=03af59fa-db17-e211-a76f-f04da23e67f6&vsro=8
Copies of Microsoft Excel and PowerPoint can be download at
http://itservices.usc.edu/officestudents/

Recommended Textbook and Journals:

Title: Unwritten Laws of Engineering
Textbook Edition #: Revised edition (June 1, 2001)
Author: Skakoon, King
Publisher: American Society of Mechanical Engineers
ISBN: 978-0791801628

Title: A Guide to the Project management Body of Knowledge, 5th Edition, (PMBOK Guides)
Author: Project Management Institute
Publisher: Project Management Institute
ISBN: 978-1-935589-67-9

Prerequisites and Other Requirements:

- Students may be exposed to peanuts or gluten as part of an assignment. If the student has an allergy to these items, please advise the instructor immediately
- Project team assignments may require students to self-purchase their own team supplies as part of the assignment. These items can be purchased at any local grocery story or across Vernon Ave at Smart and Final if needed. Costs for these supplies should be minor if needed.
- Competency in undergraduate level mathematics
- Capable of preparing professional papers and presentations in the English language using proper citations (APA format)
- Ability to produce documents in MS PowerPoint, Excel and Project
- Access to a computer with a web camera, microphone and speakers/headphone
- Access to watch television episodes streamed from web content. Specific content is noted in our course lecture.
- All assignments and presentations will be saved into D2L
- Students should also keep a backup on a USB thumb drive/memory stick which the student/team may use during their presentations as backup. Student/teams may also option to utilize their own laptop
- It is the student's responsibility to understand materials/subjects covered in class and meeting all due date/times

Introduction and Purposes

- ■ **Objective:** To help technical engineers and leaders of engineers develop the core skills required to manage and complete a project with a focus on understanding what is needed versus what is wanted from the client/customer.

- ■ **Description:** This course will provide students with several foundational aspects to prepare or enhance skills that are **expected** of those who are given projects to either manage or facilitate user requirements to support a larger project. It is **not** intended as a course to prepare for a project management or any other PMP type certification. Instead, this course will focus on educating students on what the user/customer needs are, how to qualify specific elements and facilitate events to keep the project moving. The core elements will include:
  - o Understanding how to set up and plan the project
    - ▪ What is being asked, wanted and needed
    - ▪ Setting up the foundation of what, who and when elements have to be completed
    - ▪ Creating the foundational baseline
  - o Working/facilitating the project plan
    - ▪ Who is accountable, responsible, consulted and informed
    - ▪ Facilitating or leading the team
    - ▪ Working with the impact of changes
    - ▪ Understanding and qualifying the effect of change to the foundational baseline
  - o Getting it done
    - ▪ Closing out the project, next steps, hand over
    - ▪ Taking care of the team, remembering to celebrate

- ■ **Approach:** This course introduces the role of the student as a representative of the client/customer by using systems thinking to understand the problem rather than understanding a symptom of a problem. Project management work fundamentally creates change and change often requires financial resources and knowledge. The accuracy of understanding the impact of change, what the true needs are and what the resource constraints are, creates the foundation which drives success for an organization. The challenge is that people often resist change and tend to ask for more than what they need. This course will introduce how the student can better prepare themselves to obtain the 'more accurate' need and how to adjust when change happens within the project plan. To support this, the instructor will use role modeling, various exercises and concepts of team structure. Supporting this approach, multiple project updates in the form of presentations will be threaded in the assignment along with rotation of leaders. In pursuit of this goal, to the extent possible, the course will use a collaborative learning approach; meaning participation in class is critical to everyone's learning experience. The instructor will function more as a facilitator to accomplish this goal. Due to the vast multi-cultural differences within global organizations, this course will take the approach to utilize examples and techniques from an American Fortune 500 company perspective.

Course Assignment, Report and Presentations

The course relies heavily upon student interaction. One way to achieve this is through in-class presentations. It is the instructor's belief that learning is best done in a collaborative environment. All students bring value to the learning experience of others.

1. Assignment presentations and reports will be submitted in PowerPoint unless otherwise advised. Use of Excel, Project or other tools will be embedded into PowerPoint as needed.
2. Naming convention of files;
   ISE-515_lastname_firstname_assignmenttitle for individual assignments and,
   ISE-515_groupname_assignmenttitle for project team presentations
   Example: Your first assignment is to create a 1-2 page Facebook profile of yourself.

Assuming your last name is Smith, the file name would be:
ISE-515_TAKEDA_KAZUO_A-01.ppt

3. Team presentations will vary on timing and noted within each lecture for the time length.
4. PowerPoint formatting:
   a. Title page; required on all assignments and submissions unless otherwise advised, centered text, no page number but set as page number 0, Font; Arial 20
      i. Assignment name and number
      ii. An optional personal title
      iii. Your name on individual assignments or Project team name, Project Manager Name called out and each name of Project team members on Project team assignments
      iv. Kazuo Takeda
      v. Assignment due date
   b. Content pages; Start with page number 1, Font; Arial 12 – 20
      (this requires you to have the title page as page number 0 found under Design, Page Setup, <u>N</u>umber slides from: 0 and Insert, Header and Footer, Slide <u>n</u>umber -checked, Don't show on title <u>s</u>lide – checked.)
   c. Transitions between slides are to be built into the presentation.
   d. Page size print setting to standard 'letter', landscape mode.
5. Optional embedded narrative audio is encouraged but must automatically start with the presentation. Audio file should be saved in lower quality, small size format. DEN students are encouraged to attend in real time but if this is a challenge, then to embed their part within the presentation. Video embedding for DEN students is encouraged for assignment presentations that they may not be able to attend live.
6. Assignments and presentations will be posted on D2L and will be **due before <mark>17:59, SIX DAYS AFTER</mark>** the assignment was issued in class (the next <mark>Sunday</mark>) unless otherwise advised <u>or</u> stated. The due date will be posted on D2L under the respective assignment. If you face challenges while uploading a file, check if the file format is supported by D2L. If you still face challenges in uploading a file, send a copy to the TA by email. <u>Only one submission attempt will be allowed for every assignment.</u>
7. If a student wishes to resubmit an assignment, they must email it to our T.A., Course Producer or Grader for consideration and the date/time of the email will be used as the new submission date. Since Attention to Detail is a cornerstone for our ISE Engineering Management program and a direct expectation of our students, resubmissions will receive a point deductions. If the resubmission is received AFTER the due date/time, in addition to an ATD resubmission deduction, the assignment will also incur late assignment deduction points.
8. Late assignments will receive a 0.1 point deduction for each hour late up to 1.0 point deduction for each 24 hours past the due date from the D2L submission time. Late submissions will also require student or team leader to provide their presentation on a USB thumb drive/memory stick for class presentation.
9. Presentations will be consolidated by the TA into one master presentation. Order of presentations will vary. Students are expected to carry a USB thumb drive/memory stick of their presentation as backup. Student/team may also opt to run their presentation from their laptop. Though this is encouraged, you are advised to use the submitted presentation by default to save time in transitioning to the student laptop.
   a. Student laptop presentations are assumed to have been confirmed by student/project team to have full functionality with the classroom A/V systems (both video and audio). Delays in setting up a student laptop may result in point deductions to that assignment presentation.
10. Use of any material (including audio/video/photo) outside of our class materials that was not created by the student/project team within any assignment must have proper citations. Examples of various citation options can be found at http://libguides.usc.edu/citation or http://www.bibme.org/. Any proper citation format is acceptable (APA, MLA, etc.) with citation noted either in the page footer or within the appendix.
11. All project team presentations and assignment 1 will require a hard copy for instructor which is due at start of class. No hard copies are required for individual assignments that are not presented in class.

Course Schedule, Obligations and Assignments

Class discussion of reading assignments
Your principal reading obligation is to keep up with the assigned chapters and articles within the course study outline mentioned in this syllabus. In addition, you are requested/expected to follow current project management issues reported by the media. Class attendance is expected and participation (individually and in project teams) will be evaluated based on its contribution to the learning process.

In addition to in-class contact hours, all courses must also meet a minimum standard for out-of-class time, which accounts for time students spend on homework, readings, writing, and other academic activities. **For each <u>unit</u> of in-class contact time, the university expects two hours of out of class student work per week over a semester.** For our course, each student has a base expectation to dedicate 6 hours per week. (Please refer to the *Contact Hours Reference,* located at http://arr.usc.edu/forms/Contact_Hours_Reference_V3.pdf)

Course reading assignment titles will be abbreviated as
- **PML** for Title: **Project Management Lite**
- **PMAMA** for Title: **Project Management: A Managerial Approach**
- **RCA** for titles noted in Required Course Articles

Class Weekly Schedule

1. Course overview.
   a. Pre-class reading: None
   b. Due: Nothing
   c. Instructor Presentation:
      i. Introduction and coarse overview
      ii. Project Management (PM) 5 step lifecycle
      iii. Core 10 PM step overview
      iv. Setup of teams
      v. Expectations
      vi. Introduction to requirements management.
   d. Student Presentations:
      i. Individual introductions
         1. Name
         2. Hometown and airport you would fly from
         3. Favorite family gathering meal description
         4. Hardest thing that you have every planned
         5. Top two hobbies/activities

2. No Class (MLK Holiday)

3. Plan the project, Projects in contemporary organizations, Requirements management. Brainstorming. Team structure overview. Baseline overview. A-2 review.
   a. Pre-class reading: PML: pgs. xi - 30, 123-124. PMAMA: Chapter 1
   b. Due: [**1/14 @ 18:00**]
      i. Complete Jung Typology Test at: http://www.humanmetrics.com Print your results and bring to class.
      ii. Individual Assignment 01: 1 to 2 page "Facebook" type profile to include:
         1. Your name and photo
         2. Typology Test profile
         3. Hometown
         4. Airport which you would fly from your hometown to USC
         5. Top two hobbies/activities
         6. Google Earth map from your hometown airport to your hometown city hall/government office

7. Your level of English speaking proficiency
8. Known allergic reactions to peanuts or gluten (e.g. breads)

4. Work the Plan. Agenda/AIL. MS Project and other planning tools. Strategic Management and Project Selection. A-3 review. A-2 presentation.
    a. Pre-class reading: PML: pgs. 31 - 72. PMAMA: Chapter 2.
    b. Due: [1/28 @ 21:59]
        i. Team Assignment 02: Overview of project management team topic A. Prepare an introduction of your team for the class. Describe each member's strength to the team. It is encouraged to use typology codes for each team member in the overview. Present your teams "Project Charter" with geospatial support. Team Leader will also recap process and AAR (After Action Review). AAR will highlight what went well, what can be improved and leader learning's.
    c. In class students, bring a 3" x 3" pad of sticky notes to class.

5. Closing it out. Project manager. Exam 1 review. A-3 presentation.
    a. Pre-class reading: PML: pgs. 81 - 96. PMAMA: Chapter 3. RCA: What Makes a Leader
    b. Due: [2/5 @ 17:59] Team Assignment 03: Team presentation of project management team topic A close out. Team Leader will also recap process and AAR.

6. Exam -1. Managing conflict and the art of negotiation. Leadership learnings.
    a. Pre-class reading: PMAMA: Chapter 4
    b. Due: Nothing

7. No Class (President's Day)

8. Projects in organizational structures. Risk planning. A-4 review.
    a. Pre-class reading: PMAMA: Chapter 5, 6
    b. Due: Nothing

9. Budgeting: estimating costs and risks. A-4 presentation.
    a. Pre-class reading: PMAMA: Chapter 7
    b. Due: Team Assignment 04: Team presentation of project management tools. Team Leader will also recap process and AAR.

10. No Class (Spring Break)

11. Scheduling. A-5 review.
    a. Pre-class reading: PMAMA: Chapter 8
    b. Due: Nothing

12. Resource Allocation. A-6 review. A-5 presentation.
    a. Pre-class reading: PMAMA: Chapter 9
    b. Due: Team Assignment 05: Team presentation of project management team topic B scope, requirements. Team Leader will also recap process and AAR.

13. Monitoring. Exam 2 review. A-6 presentation.
    a. Pre-class reading: PMAMA: Chapter 10
    b. Due: Team Assignment 06: Team presentation of project management team topic B recommendations. Team Leader will also recap process and AAR.

14. Exam 2. Controls. A-7 review.
    a. Pre-class reading: PMAMA: Chapter 11
    b. Due: Nothing

15. Project Auditing. A-8 review. A-7 presentation.
    a. Pre-class reading: PMAMA: Chapter 12

    b. Due: <u>Team Assignment 07</u>: Team presentation of project management team topic C; baseline, scope, requirements. Team Leader will also recap process and AAR.

16. Project termination. Final review. A-8 presentation.
    a. Pre-class reading: PMAMA: Chapter 13
    b. Due: <u>Team Assignment 08</u>: Team presentation of project management team topic C; review and deliverable. Team Leader will also recap process and AAR.

17. No Class (Study Days)

18. Final 19:00 – 21:00 (May 8th at 19:00)
    a. Team Presentation: Final presentation

Students are expected to frequently check announcements on D2L and their email account for any schedule updates or changes.

Assignment Submission

- Some major course assignments and all book reports, when directed by the instructor, will be submitted to the *TurnItIn* system. *TurnItIn* is a plagiarism-detection system that compares student submissions with other submissions, past course submissions, and information available on the Internet. Any submissions reviewed by *TurnItIn* and any assignment that does not follow Academic Integrity standards will be referred to USC Student Affairs.
- To submit an assignment through the Assignment Manager or *TurnItIn* system, click the "Assignments" link on the left-hand side of the course website, find the appropriate assignment on the page, and click "View/Complete" for that assignment. After filling in the appropriate fields and uploading the completed assignment, click the "Submit" link.
- To confirm your assignment was received, go to "Tools" > "My Grades". All your submissions (and grades) will be recorded here, if you do not see a link to a "score" or a "!" symbol, your submission did not go through. In particular, a "padlock" symbol means your submission has not yet been completed (if you see a "padlock", you have not yet submitted the assignment). If you have any technical issues with the submission process, email the TA immediately.
- All work submitted by a student and/or project team must include citations for any element that is not an original creation of the student. This includes all audio/video/photo's etc.
- If assignments are submitted after the due date and time, they will receive a penalty of 1.0 point for every 24 hours. Submissions over five days past due will receive zero credit.
- All submissions will be in Microsoft PowerPoint (.ppt or .pptx) format unless otherwise advised. If you need to use MS Project, MS Excel tables or Adobe PDF images, please copy or insert these images into a PowerPoint document.

Grading

Assignments x7+1* (5 points each)	35
Class Participation	15
Exams x2	30
Final Report and Presentation	20
Total	**100**

Grades will be based on the following:
- A   > 95%
- A-   > 92%

- B+   > 88%
- B   > 84%
- B-   > 80%

■ **Assignments** will be graded based on thought, originality, expression, depth, quality, as well as number and quality of references, and amount of new information (information is not simply repeated from lecture) when applicable. Each assignment is worth 5 points with the top 7 selected, 1* lowest score will be discounted. Late submissions will receive 0.1point deduction for each hour late up to1.0 point deductions for each 24 hour cycle and will be expected to have all materials and presentations handed in separately. Presentations will be on USB thumb drive or on student personal laptop for display.

   o Project Management Team presentations will be graded as a 'team'. Project Manager has ability + or – points based on total team performance. Presentations must address assignment call outs, formatted to compliance of syllabus, meet presentation time requirements, utilize proper citations, etc.

   o Project team members will rotate as team leader keeping balance within one presentation.

   o Project Manager will have added responsibilities which can result in possible bonus or deduction points only for the team leader. These elements may include the following:

      ▪ Facilitating members action items/assignments
      ▪ Facilitating project team synergy and participation
      ▪ Assuring that any technology used will function without delay during presentation when utilizing a personal laptop
      ▪ Presenting instructor copy of presentation at start of class
      ▪ Introducing assignment presentation (team/project team name and team leader noted on the presentation title slide)
      ▪ Summarizing assignment presentation
      ▪ Recapping team assignment processes with appendix PowerPoint slides to include:

         • Documenting processes which the team went through to complete the assignment
         • Including but not verbally presenting their team Action Item Log (AIL) starting after this was reviewed in class.
         • Recapping team results using an After Action Review (AAR) format to highlight what went well, what can be improved and leader learning's

■ **Attendance** is not part of the course grade. However, participation either in the classroom or on the discussion board is incorporated into the course grade. Participation will likely improve the chances of a student receiving the higher grade if the student is on the bubble between two grades.

■ **Late student additions** can be accepted following normal ISE Department protocol. Students which enter our course after the first class will be expected to complete all prior assignments on the assigned deadline to receive full credit.

   o If a student elects to join our class after an assignment deadline has passed, they will still be required to complete prior assignments and agree to

      ▪ Accept an automatic 1 point deduction per assignment
      ▪ Once identified by the instructor, grader, C.P. or T.A. as joining the course by a direct email note to the student, the same late grading protocol as described under "Course Assignment, Report and Presentations", item 6 will be added.
      ▪ This is in exchange for waiving the course late submission policy.

■ **Participation** elements in the course may take different forms.

   1. Participation during class. Comments, additions and discussion participation will be considered toward a participation grade. Engagement with questions or comments that enhance our course topics is highly encouraged. Discussion around administrative topics, e.g. assignment questions, are considered basic expectations for students are not considered as participation.

2. Participation in *Discussion Boards* (see Discussion Boards below for more details) on D2L is another way to participate in class.
3. Virtual participation by use of remote or embedded audio/video.
4. Before or after class discussions that exclude administrative elements.
5. Respect as an audience member toward others. Displays of disrespect can include talking or texting during others presentations which can result in participation deductions.
6. DEN student's participation will be determined by virtual interaction with instructor and TA related to elements that are addressed at assignment details.

■ **Exams** will be given in class on-line, and on-line for DEN students. Exam will recap current readings and lecture topics presented to date to demonstrate student's knowledge and understanding of material and concepts.

■ **Final project** is a written report and oral presentation on a topic selected by instructor. Teams will demonstrate the student's knowledge and understanding of the material presented in the course.
  - Report (full PowerPoint presentation with additional project management tools as needed, format guidelines will be provided)
  - Presentation (PowerPoint presentation with any support project management tools, given in-class)

■ **Bonus or Extra Credit** points may be given for exceptional accomplishments and are purely at the discretion of the instructor. Consideration for points include following all instructions and Attention to Detail (ATD), early submissions, use of creativity/invention, demonstration of enhanced team formation, etc. Additional class extra credit options can be requested after mid-term grades are posted. If approved, it would be made available to all students.

Discussion Board and Questions

■ Discussion board threads will be created for multiple lectures/topics and for each assignment in the course.
■ Please check the discussion board frequently.
■ If you have a question from that lecture or on the assignment from that lecture, post your question to the discussion board within the corresponding thread.
■ If you don't receive a response or your question is not sufficiently answered, only then should you email the professor and TA/CP/GRADER. Having questions posted to the discussion board not only reduces the number of duplicate emails we have to answer but also ensures that the information we provide is available to all students.
■ Discussions that bring in examples of project management, leadership, team, dysfunction and other elements of our course can be considered as participation. Examples from web sites such as LinkedIn, Fast Company, or others noted within our Blackboard files are suggested as thought starters. When using this option for participation consideration, be sure to cite your work and describe in your own words ties back to our course.

Student Expectations

■ Students are expected to be able to use the following tools in order to upload and download their assignments, obtain pertinent course information, and participate in class discussions.
  - On-campus students: D2L, MS PowerPoint, MS Project, Excel with ability to include a voice narration audio track.
■ Students are expected to cite any submitted work that is not their own and outside of the materials, readings, textbooks posted with this course. Examples of proper citation format and resources can be found at http://libguides.usc.edu/citation
■ Students are expected to follow the standards of appropriate online behavior. The protocols defined by the USC Student Conduct Code must be upheld in all aspects of class. Examples of inappropriate online behavior include but are not limited to:

- Posting inappropriate material
- SPAM to the class
- Online flaming
- Offensive language
  For more information, please visit http://www.usc.edu/student-affairs/SJACS/
- In the event of any technical breakdown, students are expected to contact the TA ASAP by email or text message.

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 me (or to TA) 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.

Statement on Academic Integrity and Conduct

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards* https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* http://equity.usc.edu or to the *Department of Public Safety* http://adminopsnet.usc.edu/department/department-public-safety. This is important for the safety of the whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* http://www.usc.edu/student-affairs/cwm/ provides 24/7 confidential support, and the sexual assault resource center webpage http://sarc.usc.edu describes reporting options and other resources.

Support Systems

A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. 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. *The Office of Disability Services and Programs* http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations. 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 blackboard, teleconferencing, and other technology.