

Daniel J. Epstein**Department of Industrial & Systems Engineering**USC **Viterbi**
School of Engineering**ISE515 Engineering Project Management (3 units)**

Fall 2022 Fridays: 2:00 to 4:50 PM
 Room: KAP 156
 Instructors Dr. Paul Lu (Paullu@usc.edu)
 Office: SSC101
 Office hours: Fridays 12 to 1:45 PM or by appointment

Prerequisite / Co-requisite / Assumptions

- No course pre-requisites
- Undergraduate-level competency of mathematics
- Capable of preparing professional papers
- Capable of delivering presentations in the English language

Introduction and Purposes

The use of projects and project management continues to grow in our society and its organizations. We can achieve goals through project organization that could be achieved only with the greatest of difficulty using traditional methods. Businesses regularly use project management to accomplish unique outcomes with limited resources under critical time constraints.

This course addresses project management from a management perspective rather than a “cookbook” process. Therefore, it is in this light that the course addresses the basic nature of managing all types of projects, be they public, business, engineering, information systems, etc. The student will be asked to deal with the problems of selecting projects, initiating them, operating, and controlling them. It will be critical for students to understand and be focused on maintaining the initial intent of the project from beginning to end and manage all aspects of the project through successful closure.

To this end, students will be asked to complete an engineering project in this class, managing their work using project management tools. Work will be done in teams.

The course will cover a variety of project management topics including:

- o Engineering project management in industry
- o Project managers and teams
- o Organization types
- o Project conflict and negotiation
- o Project selection
- o Project management

Processes

1. Initiating
2. Planning
3. Executing
4. Monitoring and Controlling
5. Closing

Factors

1. Requirements
2. Project Scope
3. Time Management
4. Cost Management
5. Quality Management

6. Risk Management
7. Project Procurement
8. Leading and Managing Project Teams
9. Stakeholder Management
10. Communication Management

Course Text Requirements

Required Text:

A Practical Project Management Guide for Technical and Nontechnical Professionals. 1st Ed. 2021. Lu, P.

Kendall Hunt. ISBN: 9781792485602

URL: he.kendallhunt.com/practical_pm

Note: Book can be purchased directly from publisher in hard and soft copy.

Grading Breakdown

ASSESSMENT WEIGHT

Homework / Participation: 10%

Case Review presentation: 10%

Midterm 20%

Final 30%

Project*: 30%

1. Proposal Review/ Report (10%)
2. Critical Design Review / Report (15%)
3. Deliverables (5%)

*Project materials, both presentation and written, will be graded on the following factors:

1. Content (35%)
2. Logic (25%)
3. Accuracy (25%)
4. Presentation Quality (15%)

If any team is not prepared to present, for whatever reason, all members of that team will receive a zero for that deliverable. Presentations should be prepared in PowerPoint and should be contained to time allotted (under separate cover).

Quality and Timeliness Expectations

No late work will be accepted.

All work shall be submitted in electronic format. (Doc/docx, xls/xlsx, ppt/pptx, pdf)

All work shall have cover page with:

1. Your name
2. Your team member names with last names in alphabetical order
3. Document title
4. Document date
5. File name must conform to the following: last name first name-assignment#.ext.

Attendance and Participation Expectations

Although attendance is not a direct part of the course grade, participation 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.

It is the philosophy of the professors, that as a graduate course, rather than an undergraduate course, learning is a class endeavor. Everyone must participate in the learning process. Therefore, your participation is directly correlated to your commitment to learning the subject matter in this course to its fullest extent. Participation may take the form of:

1. Participation in class
2. Participation on the discussion board (Both answering questions and asking them)

Schedule: (Timing is **approximate** and subject to **change**. This is a living document and will be modified based on the course requirements.)

Date	Topic	Chapters	Assignments
8/26	Introduction/Project Initiation	1 & 2	Chapter 1: Questions 1 to 6. Chapter Exercise 1. Chapter 2: Questions 1 to 5. Chapter Exercise 1 to 3 as a team.
9/2	Project Planning /Project Scope Mgmt.	3	Chapter 3: Questions 1 to 11. Chapter Exercise 1 to 4 as a team.
9/9	Project Time Mgmt.		Chapter 4: Questions 1 to 8. Chapter Problems 1 and 2. Chapter Exercise 1 as a team
9/16	Estimating/ Cost Mgmt./	4 & 5	Chapter 5: Chapter Questions 1 to 11. Problems 1, 2, 4, 5, and PERT. Chapter Exercise: 1 to 3 as a team. Case Review chapter 3 (Team 1) Chapter 6: Questions 1 to 8. Chapter exercise 1 and 2 as a team
9/23	Quality Mgmt.	6 & 8	Chapter 8: Questions 1 to 11. Exercise 1 as a team Cases Review Chapter 5 (Team 2)
9/30	Midterm		
10/7	Risk Mgmt	7 & 9	Chapter 7: Questions 1 to 6. Problem 1, and exercise 1 as a team.
10/14	Fall Recess		No Class
10/21	Procurement Mgmt.		Chapter 9: Questions 1 to 10. Chapter Exercise 1 as a team. Case Review Chapter 8 (team 3)
10/28	Leadership/Stakeholder Mgmt.	10 & 11	Chapter 10: Questions 1 to 9 Chapter Exercise 1 as a team Chapter 11: Questions 1 to 6 Chapter Exercise 1 as a team Case Review Chapter 7 (team 4)
11/4	Communication Mgmt./Project Execution	12 & 13	Chapter 12: Questions 1 to 6 Chapter Exercise 1 and 2 as a team Chapter 13: Questions Case Review Chapter 10 case 2 (Team 1) Case Review Chapter 11 Case 1 (team2)
11/11	Veterans Day		No Class
11/18	Monitor & control/Project Closing	14 & 15	Chapter 14: Questions 1 to 7 Chapter Exercise 1 and 2 as a team Chapter 15: Questions 1 to 7 Chapter Exercise 1 and 2 as a team Case Review Chapter 12 case 1 (team 3) Case Review Chapter 13 (team 4)
11/25	Thanksgiving		No Class
12/2	Team Project Presentation		
12/9	Final Exam		

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.

Statement on Academic Integrity

USC seeks to maintain an optimal learning environment. 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. All students are expected to understand and abide by these principles. *Scampus*, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: <http://www.usc.edu/dept/publications/SCAMPUS/gov/>. 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/>.

Rubric for Case Study						
	< 65%	65-75%	75-85%	85-95%	95-100%	Grade
Content	Contribution below minimum standard with insufficient content to support the case.	Contribution meets minimum standard with minimal content to support the case.	Contribution is above minimum standard with above average content to support the case.	Contribution exceeds minimum standard with above average content and materials to support the case.	Contribution is in-depth and comprehensive relative to the requirements identified in the case study.	2.5
Analysis and Research	Analysis is below minimum standards with very little reflection and examination of the case study	Analysis meets minimum standards with limited reflection and examination of the case study.	Analysis has superficial analysis with limited reflection and examination of the case study.	Analysis has thorough analysis and and reflect some examination of the case study.	Analysis has insightful and thorough analysis, reflecting deep examination of the case study.	2.5
Organization/structure	Portions of the case study are organized, but would not be considered effective or complete.	Meets minimum stanadards of organization and structure, but not effective or complete.	Above minimum standards or organization and structure with area that can be further organized and structured.	Case study meets assignment requirements. All topics are included and organized in a logical manner.	Case study is very well organized, easy to follow and understand. Information has a logical flow.	2.5
Presentation quality and clarity	Presentation unclear and difficult to understand.	Presenation meets minimum standards. Able to verbalize the nature and issues of the case but not fully addressing the case questions.	Presentation is above standards. Able to clerly verbalize the nature and issues of the case.	Presentations generally clear and concise. Case topics, issues, and questions are effective organized and delivered.	Presentation is crisp, clear and succinct. Incorporates appropriate content and references to support the ideas and examples.	2.5

Rubric for Team Project						
	< 65%	65-75%	75-85%	85-95%	95-100%	Grade
Content	Contribution below minimum standard with insufficient content to support the case.	Contribution meets minimum standard with minimal content to support the case.	Contribution is above minimum standard with above average content to support the case.	Contribution exceeds minimum standard with above average content and materials to support the case.	Contribution is in-depth and comprehensive relative to the requirements identified in the case study.	5
Analysis and Research	Analysis is below minimum standards with very little reflection and examination of the case study	Analysis meets minimum standards with limited reflection and examination of the case study.	Analysis has superficial analysis with limited reflection and examination of the case study.	Analysis has thorough analysis and and reflect some examination of the case study.	Analysis has insightful and thorough analysis, reflecting deep examination of the case study.	5
Organization/structure	Portions of the case study are organized, but would not be considered effective or complete.	Meets minimum standards of organization and structure, but not effective or complete.	Above minimum standards of organization and structure with area that can be further organized and structured.	Case study meets assignment requirements. All topics are included and organized in a logical manner.	Case study is very well organized, easy to follow and understand. Information has a logical flow.	5
Presentation quality and clarity	Presentation unclear and difficult to understand.	Presenation meets minimum standards. Able to verbalize the nature and issues of the case but not fully addressing the case questions.	Presentation is above standards. Able to clerly verbalize the nature and issues of the case.	Presentations generally clear and concise. Case topics, issues, and questions are effective organized and delivered.	Presentation is crisp, clear and succinct. Incorporates appropriate content and references to support the ideas and examples.	5
Writing quality and clarity	Writing is below minimum standards. Content is not clear and organized with errors and omissions.	Writing meets minimum standard with limited content and substance. Content is organized but contains errors and omissions.	Writing is above average and content demonstrates above average content, materials, and references. Very little errors and omissions.	Writing is generally clear; unnecessary words are occasionally used. Paragraph or sentence structure is repetitive. Few errors in grammar, punctuation, and/or spelling.	Writing is crisp, clear and succinct. Incorporates an active voice when appropriate with supporting ideas and examples. No errors in grammar, punctuation, and/or spelling.	10

In-Class Participation:

Class participation is expected and will be incorporated into your grade. Please note that class participation is not the same as class attendance, although one could hardly participate if frequently absent! During case discussion there is a “no open” laptop (or similar device) policy. Persistent in-class texting or Web surfing will typically result in an “F” grade for participation. Use the following criteria as a guide to your class participation grade:

“A” (range: 90-100)

Contributes each meeting to class participation in a way that clearly indicates knowledge and appropriate application of course concepts. Consistently demonstrates a superior quality of analysis and logical development of train of thought. Frequently takes the lead in discussions related to assigned cases.

“B” (range: 80-89.99)

Contributes quite frequently to class participation. Demonstrates an informed knowledge of course concepts but is not as insightful as an “A” student or as frequent in participation.

“C” (range: 70-79.99)

Occasionally contributes to class discussion, but often, only offers personal perspectives not grounded in class content. Rarely initiates class discussion.

“D” (range: 60-69.99)

Attends class frequently but rarely contributes to class discussion.

“F” (range: below 60)

Either takes no part in class discussion **or** is dysfunctional to class discussion **or** misses 3 or more classes.