

IEE 558/458: Project Management

Course Overview, Directions, and Timelines

Welcome to Project Management. Here is the plan for the semester:

- All students should have access to the Power Point slides and any additional readings in Canvas.
- The course syllabus that follows contains the course description, learning objectives, and general rules for the class.

Course Foundation

This course is a foundation course to our Engineering Management curriculum at ASU. As such it must address all of the concepts needed for a successful system planning, design and build process. The foundation for the course is based upon the following notions:

- Projects MUST be planned and managed.
- Projects MUST be driven by requirements and MUST establish customer expectations.
- Projects go through various phases and each must be managed.
- Tools exist but must be used correctly.
- Risk will be present and trade-studies must be conducted to mitigate the risk.

Course Description

Life-cycle processes for selecting and managing large scale projects to ensure successful completion. Topics include project phases, defining milestones, work breakdown structure, group decision making and teamwork, organizational structure, human resource management, technological and economic feasibility, configuration management, budget control, and resource allocation and scheduling. Use of modern tools for planning and controlling project performance.

Credits: 3

Prerequisite Topics

This is an overview course that can be completed by any junior senior, or graduate Engineering student. With the expectation that many of the tools will be based upon statistical foundations, the prerequisite is a strong probability and statistics course, such as IEE 380, EEE 350, MAE 301, STP 420, ECN 221, or an equivalent course with a "C" or higher.

Instructor

Dr. Dan McCarville

Email: daniel.mccarville@asu.edu

Zoom Office Hours are posted in the class Canvas site

Learning Objectives

Upon successful completion of the course the student should have mastered the following concepts and capabilities:

- A deep understanding of why projects fail.
- A deep understanding of how to define customer success
- A deep understanding of the elements of a successful project management engagement
- A deep understanding of the PM process
- A good understanding of scheduling tools.
- A deep understanding of how to identify and mitigate risk
- A deep understanding of how to conduct qualitative and quantitative trade-studies
- A good understanding of how to use modern PM tools
- A good understanding of how to control and execute a project.

Textbooks

Kerzner, Harold, *Project Management: A Systems Approach to Planning, Scheduling, and Controlling*, 13E, Wiley, 2022.

OR

Kerzner, Harold, *Project Management: A Systems Approach to Planning, Scheduling, and Controlling*, 12E, Wiley, 2018.

A Guide to the Project Management Body of Knowledge (PMBOK) – Online ASU Library.

Course Access

This is a fully online course using pre-recorded lectures.

Computer Requirements

You will be required to complete various assignments using the tools learned in the lectures and reading assignments. Microsoft Project will be used for one of the assignments, and only runs on PC (Windows) computers, or Macs with the Windows operating system. Some students, depending on the program they are enrolled, will be able to download this software for free from MyApps. Students who are unable to download Microsoft Project can always find it on various ASU computer lab systems.

- PC (Windows) computer or Apple computer with the Windows operating system and Windows Excel preferred
- Desk top or laptop computer, not a tablet, iPad, or Chromebook
- Google [Chrome](#) web browser
- Microsoft Office; 365 is free to students as well as the Windows operating system for Macs
- [Adobe Acrobat Reader](#) (free)
- Webcam, microphone, and speaker
- Reliable broadband internet connection (DSL or cable) to stream videos for uploading assignments to Canvas
- Zoom (provided by ASU) for office hours

- Good and reliable internet connection

Note: A smartphone, iPad, Chromebook, etc. will not be sufficient for completing your work in this course. While you will be able to access course content with mobile devices, you must use a computer for all assignments, quizzes, and virtual labs.

Course Structure

The lectures are pre-recorded videos that can be streamed from Canvas. Homework will be submitted electronically to Canvas. Exams are also online in Canvas and must be completed during the specified exam windows using the provided online proctoring service.

Student Success

To be successful:

- check the course daily
- read announcements
- read and respond to course email messages as needed
- complete assignments by the due dates specified
- communicate regularly with your instructor and peers
- create a study and/or assignment schedule to stay on track

Artificial Intelligence (AI) tools can not be used in this class

AI tools, such as Chat GPT, can NOT be used on homework assignments in this class. Students can NOT upload course materials such as lecture slides, assignment instructions, etc. into an AI tool even if it is a “private chat”. Students can NOT post any of the course materials to websites, such as Course Hero, Chegg, others, or share them with a friend.

Semester Project

To help the students understand the continuity of the various project management concepts and tools, a team project is assigned that will require the student to incorporate these tools throughout the semester. The project assignments will be submitted throughout the semester, approximately every other week for interim grading. The final project report assignment is completed individually by each team member near the end of the semester. Project topics are identified by the students as long as there is enough complexity in the project to utilize the tools. Topics can also be assigned by the instructor if needed.

Grading

Grade	Percentage
A	≥ 90 to 100%
B	≥ 80 to < 90%
C	≥ 70 to < 90%

D	≥ 60 to $< 90\%$
E	$< 60\%$

"Y" grades are not an option for this class, unless an ASU policy requiring this option is provided by the Provost's Office to ASU faculty this semester. If you are falling behind in the class due to medical issues or personal issues, please contact your advisor and the instructor. An "I" grade (Incomplete) might be provided. This grade will be changed to a letter grade when the missing work is completed per the agreement with the instructor.

Grading Procedure

The course grade will be determined based upon the total points each individual students achieves in the following categories:

Semester Project Assignments (total) 100 points
 Exam #1 100 points
 Exam #2 100 points
 Exam #3 100 points
 Total Available Points for All Students 400 points

An additional assignment might be required for graduate students, IEE 558.

Assignments

We have graded and ungraded assignments. The answers for the ungraded assignments (textbook problems) are provided in our course website. All graded assignments, unless otherwise announced, MUST be submitted to the designated area of Canvas. Do not submit an assignment via email.

Assignment due dates follow Arizona Standard time. Note: Arizona does not observe daylight savings time.

The project assignments can be worked in small teams. No copying or plagiarizing are allowed in this course. The final assignment is an individual assignment.

Exams

The exams are closed book and closed note. One 8.5x11 inch hand-written note sheet with written notes on both sides can be used during the exams. Pencils and an eraser are also required. A non-programmable calculator can be used. Cell phones, tablets, computers, and programmable calculators are NOT allowed during the exams.

The exams in this class may contain multiple choice, short answer, and mathematical problems. The exams are based on the reading assignments including both books and various articles and documents, lectures, graded assignments, ungraded assignments, and any additional materials provided to the class. I urge students to attend all lectures. Verbal discussions that are not written in the slides are popular items to be included in the lectures.

To help improve the quality of education at Arizona State University, and assure that the degrees earned by our engineering students are based on the highest ethical standards, the following requirements for taking a McCarville exam are as follows:

1. Do your own work. No teamwork or discussions of any type are acceptable during the exam.
2. No hats, hoods, earbuds, smart watches can be worn during the exams. Religious head coverings are acceptable.
3. Exams are closed book, but you can have one 8.5 by 11 inch hand-written two-sided note sheet.
4. Along with your note sheet, you can have pencils, erasers, and a non-programmable non-graphing calculator. Do not plan to use your phones for calculations. You cannot use a programmable/graphing calculator such as a TI-83, TI-84, TI-89, TI-N'spire, or any of the more expensive programmable/graphing calculators.
5. An online proctoring service will be used that requires a webcam and microphone. The proctoring service uses advanced AI to detect cellphone usage and other integrity violations.
6. Any electronic device such as a dictionary or translator must be approved by me prior to starting the exam. No device with transmitting capabilities or a camera will be allowed.
7. The exams are the property of Arizona State University and Dan McCarville. They can NOT be copied or distributed. No Screen Shots. Do not give it to a friend.
8. Additional rules might be included for each exam.

Violations to these requirements as well as those identified in ASU's Academic Integrity Policy will be processed as required by this policy. See the Academic Integrity section below. I sincerely appreciate your help with my efforts to improve your education experience, and enhance your career opportunities.

Late or Missed Assignments and Exams

Accommodations will be made for religious observances provided that students notify the instructor at the beginning of the semester concerning those dates. Students who expect to miss class due to officially university-sanctioned activities should inform the instructor early in the semester. Alternative arrangements will generally be made for any examinations and other graded in-class work affected by such absences.

Notify the instructor BEFORE an assignment is due if an urgent situation arises and the assignment will not be submitted on time. Published assignment due dates (Arizona Mountain Standard time) are firm. Please follow the appropriate University policies to request an accommodation for religious practices or to accommodate a missed assignment due to University-sanctioned activities.

Due dates for classwork are on the class schedule. All work is due on the scheduled date. Late work will not be graded, and you will receive a score of "0".

The only excuses accepted for a missed exam or homework assignment are as follows:

1. Religious holiday/event as identified and approved by ASU
2. ASU sanctioned athletic/band event for our athletes and corresponding band students
3. Death of an immediate family member (parent, grand parent, brother, sister, child)
4. Hospitalization
5. US Military deployment

My general process for excused missed exams and assignments will not include a make up exam. Rather, the final exam will be weighted more to compensate for the missed exam. Missed exams and assignments that are not excused will receive a zero grade.

Excused absences related to missed class due to military line-of-duty activities that are in accord with [ACD 304–11](#), “Missed Class Due to Military Line-of-Duty Activities,” and SSM 201–18, “Accommodating Active Duty Military”.

Academic Integrity

In addition to the rules stated in this syllabus regarding assignments and exams, students in this class must adhere to ASU’s academic integrity policy, which can be found at <https://provost.asu.edu/academic-integrity/policy>). Students are responsible for reviewing this policy and understanding each of the areas in which academic dishonesty can occur. In addition, all engineering students are expected to adhere to both the ASU Academic Integrity [Honor Code](#) and the Fulton Schools of Engineering [Honor Code](#). All academic integrity violations will be reported to the Fulton Schools of Engineering Academic Integrity Office (AIO). The AIO maintains record of all violations and has access to academic integrity violations committed in all other ASU college/schools.

Copyright

All course content and materials, including lectures (Zoom recorded lectures included), are copyrighted materials and students may not share outside the class, upload to online websites not approved by the instructor, sell, or distribute course content or notes taken during the conduct of the course (see [ACD 304–06](#), “Commercial Note Taking Services” and ABOR Policy [5-308 F.14](#) for more information).

You must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's original work, unless the students first comply with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement. Providing any course materials to friends, family, boards, websites is considered a copyright violation and an academic integrity violation.

Communicating With the Instructor

Community Forum

This course has a discussion board available in the class website for students to discuss particular problems or course content. The instructor will not be paying much attention to this discussion board, so please do not provide specific questions for the instructor.

Students are encouraged to ask questions during the live weekly meetings and office hours. The class website has a message system students can also use to ask questions to the instructor.; students can expect a response within 72 hours or so.

email

ASU email is an [official means of communication](#) among students, faculty, and staff. Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should

check their ASU-assigned email regularly. Students must send emails to faculty from their ASU email account rather than a personal account.

All instructor correspondence will be sent to your ASU email account.

Other Course Policies

All students in this class are subject to ASU's Academic Integrity Policy which is available at the following link:

<https://provost.asu.edu/academic-integrity/policy>

Students should acquaint themselves with its content and requirements, including a strict prohibition against plagiarism. All violations will be reported to the Dean's office, who maintain records of all offenses.

All students must wear face coverings in classrooms, labs, offices, and community spaces.

Disability Accommodations

Suitable accommodations will be made for students having disabilities and students should notify the instructor as early as possible if they will require same. Such students must be registered with the Disability Resource Center and provide documentation to that effect.

Harassment and Sexual Discrimination

Arizona State University is committed to providing an environment free of discrimination, harassment, or retaliation for the entire university community, including all students, faculty members, staff employees, and guests. ASU expressly prohibits discrimination, harassment, and retaliation by employees, students, contractors, or agents of the university based on any protected status: race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, and genetic information.

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at <https://sexualviolenceprevention.asu.edu/faqs>.

Mandated sexual harassment reporter: As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, <https://eoss.asu.edu/counseling>, is available if you wish discuss any concerns confidentially and privately.

Policy against threatening behavior, per the Student Services Manual, [SSM 104-02](#)

Students, faculty, staff, and other individuals do not have an unqualified right of access to university grounds, property, or services. Interfering with the peaceful conduct of university-related business or activities or remaining on campus grounds after a request to leave may be considered a crime. All incidents and allegations of violent or threatening conduct by an ASU student (whether on- or off-campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students.

Accessibility Statements

View the [Accessibility section](#) in the class website to review accessibility statements for common tools and resources used.

Syllabus Disclaimer

The syllabus is a statement of intent by the instructor. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. Remember to check your ASU email and the course site often.