



Course Syllabus
CE 4387/5387
Construction Scheduling

General Information

Course Instructor: Dr. Jaeyoon (Jason) Kim
Email: jkim13@utep.edu
Office: Civil Engineering (A215)
Office phone number: (915)747-8729
Office hours: Virtually via Teams: M 1-2 pm, T 4-5 pm
Course website: <https://blackboardlearn.utep.edu/>

Course Credits: 3

Prerequisites or Co-requisites

Bachelor's Degree in Engineering, Physical Sciences or Business, CE 4382 or Instructor approval

Course Description

The primary goal of CE4387/5387 is to develop students' critical thinking skills with an understanding of the planning, scheduling, and monitoring of construction projects, including the development of critical path networks (CPM & PERT), Gantt bar charts, and construction cost control and reporting practices. In addition, students will learn how to use the software tools to accurately prepare and analyze the project schedule and to effectively communicate the schedule to management team.

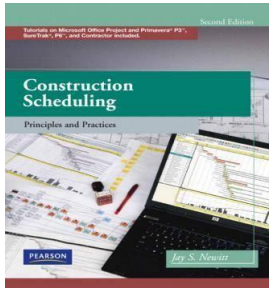
Course Goals and Learning Objectives

The goal of this course is to provide the students with the necessary skills to adequately schedule and control residential, commercial, industrial, manufacturing, or engineering projects. At the end of this course, students will be able to

- LO1: Define schedule of activities and assign reasonable durations to the activities
- LO2: Generate bar charts and critical path networks; including early start, late start, early finish, late finish, durations, and float
- LO3: Identify the critical activities that affect the timely completion of the project
- LO4: Analyze and update the schedule to monitor progress
- LO5: Correlate resources and costs to the schedule and Balance the resources
- LO6: Control and accurately report the progress of the project

REQUIRED MATERIAL

1. Textbook



Construction Scheduling: Principles and Practices, 2/E

Author: Jay S. Newitt

ISBN-10: 0135137829 • ISBN-13: 9780135137826

2. Computer Activities

The computer activities are primarily assignments using **MS Project 2016/19**, which is available for engineering students through the Microsoft DreamSpark Program (<http://etc.utep.edu/software/msdn.htm>). For any kind of technical help, please contact the Engineering Technology Center in the Engineering Bldg., Room E351 (Tel: (915) 747-5223; Email: etchelpdesk@utep.edu)

Mac users have the following options: [MS Cloud-based solution](#) or [ProjectPlan 365](#). Both of these Platforms offer one-month free trial, and after that, you have to pay for an annual subscription (\$110-\$119).

GRADING POLICY

Students will be responsible for weekly quizzes, class discussion/participation, assignments, and exams. Grades will be determined based on the following criteria.

Grade	Required Percentage of Available Points
A (Outstanding)	90 – 100
B (Very Good)	80 – 90
C (Satisfactory)	70 – 80
D (Unsatisfactory)	60 – 70
F (Failure)	less than 60

Grading Scheme

The percentage weightage of each assignment category to the total grade is as follows:

	Assignment Categories				
	Quizzes	Assignments/ Graduate paper	Discussion questions/ participation	Final Project	Final exam
Weightage	15%	25%	20%	20%	20%

DELIVERABLE STANDARDS & EXPECTATIONS

1. Quizzes

There will be five quizzes throughout the semester based on the course material covered during the week(s) before the quiz. There will be **NO** make-up quiz allowed.

2. Assignments

The assignments will generally be posted with a due date after one week of the published date. The homework assignments are to be submitted using the assignment tool on Blackboard after scanning your work and converting it in .pdf format. **The assignments are to be prepared in a professional manner as if you were expecting to favorably impress a prospective owner.**

There will be only **ONE** late submission allowed that is missed because of unforeseen circumstances. Graduate students have to work on a synthesis paper/case study during the semester that should be submitted by the sixth week of the semester.

3. Discussion Questions

Each week students must provide **FIVE** comments including their own answers to discussion questions posted on the discussion board online. The comments should add to the discussion by sharing your experience or adding information that is missing. The comments such as great...really good...I enjoyed it...All answers are good....I agree etc., will NOT be considered for grading purposes.

4. Final Project

Students will be working on a project throughout the semester, identifying work activities, estimating durations, leveling resources, and producing and presenting reports. The students will have to submit final reports in a professional manner. A description and rubric for the final project will be provided during the second week of the semester.

5. Final Exam

Final exam will be comprehensive consisting of MCQ's, Fill-in-the-blanks, short questions, problem based questions and true/false.

6. Feedback/Course evaluations

Students are encouraged to provide feedback during the term to facilitate a positive learning environment. Students can send any suggestions/comments/concerns regarding the course/assignments structure or any related aspect. Instructor strongly believes in helping and listening to students during the semester when it affects them THE MOST. The link for the final course evaluation will be sent to the students during the final week of the semester. After completing the evaluation, students must send a screenshot to get the associated grade.

DIVERSITY

As an instructor, I am committed to creating an inclusive environment in which all students are respected and valued. I will not tolerate disrespectful language or behavior on the basis of age, ability, color/ethnicity/race, gender identity/expression, marital/parental status, military/veteran's status, national origin, political affiliation, religious/spiritual beliefs, sex, sexual orientation, socioeconomic status or other visible or non-visible differences. All members of this class are expected to contribute to a respectful, welcoming, and inclusive environment for every other member of the class.

EXCUSED ABSENCES AND/OR COURSE DROP POLICY

According to UTEP Curriculum and Classroom Policies, "When, in the judgment of the instructor, a student has been absent to such a degree as to impair his or her status relative to credit for the course, the instructor may drop the student from the class with a grade of "W" before the course drop deadline and with a grade of "F" after the course drop deadline." See academic regulations in the UTEP Undergraduate Catalog for a list of excuse absences. Therefore, if I find that, due to non-performance in the course, you are at risk of failing, I will drop you from the course.

IMPORTANT REMINDERS

Course Schedule Changes

As a course instructor, I reserve the right to adjust the course syllabus or change assignments as needed. I will make sure to give you plenty of notice prior to any changes.

Academic Dishonesty Statement

Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another person as one's own. And, collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. Violations will be taken seriously and will be referred to the Dean of Students Office for possible disciplinary action. Students may be suspended or expelled from UTEP for such actions.

Academic dishonesty is an assault upon the basic integrity and meaning of a University. Cheating, plagiarism, and collusion in dishonest activities are serious acts which erode the University's educational and research roles and cheapen the learning experience not only for the perpetrators but also for the entire community. It is expected that UTEP students will understand and subscribe to the ideal of academic integrity and that they will be willing to bear individual responsibility for their work. Materials (written or otherwise) submitted to fulfill academic requirements must represent a student's own efforts. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. Violations will be referred to the Dean of Students Office for possible disciplinary action. Students may be suspended or expelled from UTEP for such actions.

Notice of Safe Assign

This course may utilize third-party software that has the ability to automatically detect plagiarism on documents submitted for grading.

Copyright Notice

Many of the materials that are posted within this course are protected by copyright law. These materials are only for the use of students enrolled in this course and only for the purpose of this course. They may not be further retained or disseminated.

Center for Accommodations and Support Services

In Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act

(ADA) of 1990, if a student needs an accommodation then the Center for Accommodations and Support Services located at UTEP needs to be contacted. If you have a condition, that may affect your ability to perform successfully in this course, you are encouraged to discuss this in confidence with the instructor and/or the director of the Disabled Student Services. You may call (915) 747-5148 for general information about the Americans with Disabilities Act (ADA) and the rights that you have as a UTEP student with a disability. You also can visit the website at <https://www.utep.edu/student-affairs/cass/> or the CASS office in Room 106, Union East Building. Individuals with disabilities have the right to equal access and opportunity. It is the student's responsibility to contact the instructor and The CASS Office at The University of Texas at El Paso.

Technical Assistance

The University of Texas at El Paso offers complete technical information and help desk support at: <http://at.utep.edu/techsupport/>.

COURSE SCHEDULE*

Week*	Topics	Readings	Deliverables	Related learning outcomes
1	<ul style="list-style-type: none"> Importance of scheduling and scheduling systems Bar chart schedules Introduction to MS project software 	Text Chapters 2,3,4 PowerPoint 1	Assignment 1 Discussion 1	LO1, LO2
2	<ul style="list-style-type: none"> CPM scheduling Early and Late Start & Finish calculations Float or slack time calculations Network logic diagrams 	Text Chapters 5,6 PowerPoint 2	Assignment 2, Quiz 1, Discussion 2	LO2
3	<ul style="list-style-type: none"> Determining activity durations Lags PERT 	Text Chapters 7,9 PowerPoint 3	Assignment 3, Quiz 2, Discussion 3	LO2, LO3
4	<ul style="list-style-type: none"> Analyzing schedule Creating bar charts 	Text Chapter 11,12 PowerPoint 4	Assignment 4, Quiz 3, Discussion 4	LO4
5	<ul style="list-style-type: none"> Linear scheduling Updating the schedule 	Text Chapter 13,14 PowerPoint 5	Assignment 5, Quiz 4, Discussion 5	LO4
6	<ul style="list-style-type: none"> Resource balancing 	Text Chapter 15 PowerPoint 6	Assignment 6, Quiz 5, Discussion 6 Graduate paper due	LO5
7	<ul style="list-style-type: none"> Project control techniques (Cost and schedule) Managing project team Other scheduling techniques 	Text Chapter 16,17,18 PowerPoint 7	Discussion 7 Final project report	LO6
Final Day			Final Exam	

* Instructor reserves the right to adjust the course schedule as needed

ACCOMMODATIONS POLICY

The University is committed to providing reasonable accommodations and auxiliary services to students, staff, faculty, job applicants, applicants for admissions, and other beneficiaries of University

programs, services and activities with documented disabilities in order to provide them with equal opportunities to participate in programs, services, and activities in compliance with sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Reasonable accommodations will be made unless it is determined that doing so would cause undue hardship on the University. Students requesting an accommodation based on a disability must register with the [UTEP Center for Accommodations and Support Services](#) (CASS). Contact the Center for Accommodations and Support Services at 915-747-5148, or email them at cass@utep.edu, or apply for accommodations online via the [CASS portal](#).

SCHOLASTIC INTEGRITY

Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as ones' own. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the [Office of Student Conduct and Conflict Resolution \(OSCCR\)](#) for possible disciplinary action. To learn more, please visit [HOOP: Student Conduct and Discipline](#)

CLASS RECORDINGS

The use of recordings will enable you to have access to class lectures, group discussions, and so on in the event you miss a synchronous or in-person class meeting due to illness or other extenuating circumstance. Our use of such technology is governed by the Federal Educational Rights and Privacy Act (FERPA) and UTEP's acceptable-use policy. A recording of class sessions will be kept and stored by UTEP, in accordance with FERPA and UTEP policies. Your instructor will not share the recordings of your class activities outside of course participants, which include your fellow students, teaching assistants, or graduate assistants, and any guest faculty or community-based learning partners with whom we may engage during a class session. You may not share recordings outside of this course. Doing so may result in disciplinary action.

COURSE RESOURCES

UTEP provides a variety of student services and support:

Technology Resources

- [Help Desk](#): Students experiencing technological challenges (email, Blackboard, software, etc.) can submit a ticket to the UTEP Helpdesk for assistance. Contact the Helpdesk via phone, email, chat, website, or in person if on campus.

Academic Resources

- [UTEP Library](#): Access a wide range of resources including online, full-text access to thousands of journals and eBooks plus reference service and librarian assistance for enrolled students.
- [University Writing Center \(UWC\)](#): Submit papers here for assistance with writing style and formatting, ask a tutor for help and explore other writing resources.
- [Math Tutoring Center \(MaRCS\)](#): Ask a tutor for help and explore other available math resources.

- [History Tutoring Center \(HTC\)](#): Receive assistance with writing history papers, get help from a tutor and explore other history resources.
- [RefWorks](#): A bibliographic citation tool; check out the RefWorks tutorial and Fact Sheet and Quick-Start Guide.

Individual Resources

- [Military Student Success Center](#): Assists personnel in any branch of service to reach their educational goals.
- [Center for Accommodations and Support Services](#): Assists students with ADA-related accommodations for coursework, housing, and internships.
- [Counseling and Psychological Services](#): Provides a variety of counseling services including individual, couples, and group sessions as well as career and disability assessments.