CONE 322.01E CONSTRUCTION PLANNING AND SCHEDULING

COURSE SYLLABUS: SPRING 2024

INSTRUCTOR INFORMATION

Instructor: Taewoo Ko Ph.D., Assistant Professor
Office Location: AG/ET 119B
Office Hours: M, T, W, R 10:00 am - 11:30 am or by appointment.
Office Phone: 9034688131
Office Fax: 9038865960
University Email Address: taewoo.ko@tamuc.edu
Preferred Form of Communication: Office Hours or Email
Communication Response Time: Emails will be responded to on the same day. Feel free to send an email at any time. Emails received during the weekend will be responded to on the evening of the same day.
Course Times: TR 08:00 am – 09:15 am

COURSE INFORMATION

Textbook:
Textbook Required: Construction Planning and Scheduling. Jimmie Hinze / 4th edition. Publisher: Pearson ISBN-978-0132473989. The instructor will provide lecture slides/ handouts as references too.

Course Description

This course provides students with an introduction to the principles of construction scheduling and planning. It delves into the practical applications of efficient project planning and analysis, covering key topics such as Gantt scheduling, Critical Path Method (CPM), Critical Path Planning, resource allocation, cash flow planning, schedule monitoring, and productivity factors. As part of the course, students will actively engage in developing a detailed schedule for a small commercial project.

Student Learning Outcomes

After completing this course:

Upon completion of this course, the student will be able to:
1. an ability to apply knowledge of mathematics, science, and engineering
2. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
3. an ability to identify, formulate, and solve engineering problems
4. an understanding of professional and ethical responsibility
5. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

COURSE REQUIREMENTS

Prerequisites

1. CONE 321-Min Grade C

Minimal Technical Skills Needed

1. the learning management system, D2L learning management system
2. Microsoft Word, Excel, PowerPoint.
3. MS Project.

Instructional Methods

This course utilizes lectures, and assignments to assist students in achieving the course learning outcomes.

Student Responsibilities or Tips for Success in the Course

Students should attend the lectures and deliver the assignments on time.

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GRADING

Final grades in this course will be based on the following scale:

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

Weights of the assessments in the calculation of the final letter grade.

Assessment Type	Score	Weight
Homework	100	20%
Quizzes	100	20%
Mid-term Exam	100	20%
Final Project and Report	100	20%
Final Exam	100	20%
Total	500	100%

Assessments

The assessment criteria for the stated student learning outcomes will include homework, quizzes, a term project, a midterm exam, and a final exam.

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:
https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

LMS Browser Support:
https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

YouSeeU Virtual Classroom Requirements:
https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu**.**

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These

methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

https://community.brightspace.com/support/s/contactsupport

Interaction with Instructor Statement

The instructor will respond to your questions on D2L tools within 24 hours. For urgent questions, and for questions that are not answered within 24 hours, please prefer e-mail correspondence.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

1. One day late assignment is accepted with a 15% grade deduction; after this, no assignment will be accepted.
2. You will be expected to do all the readings throughout the semester.
3. Each exam will be given in class. Exams are closed book and notes (necessary formulas will be provided on a separate page). Students will need a scientific calculator for exams. Cell phones are not acceptable as a calculator. Use of unauthorized aids on exams will result in a grade of zero.
4. There will be one group project.
5. The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.
6. No make-up exams will be permitted unless official documentation for absences is provided (e.g., death in the family, illness).

"Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors 'guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty

13.99.99.R0.10 Graduate Student Academic Dishonesty"

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.
http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:
https://www.britannica.com/topic/netiquette

TAMUC Attendance

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01.
http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03
Undergraduate Student Academic Dishonesty Form

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf

Graduate Student Academic Dishonesty Form

http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishonestyFormold.pdf

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Velma K. Waters Library Rm 162
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
Email: studentdisabilityservices@tamuc.edu
Website: Office of Student Disability Resources and Services
http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the Carrying Concealed Handguns On Campus document and/or consult your event organizer.

Web url:
http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

COURSE OUTLINE / CALENDAR

Week	Date	Topics	Homework
1	1/11	Course Introduction	
2	1/16	Ch.1 - Introduction	
	1/18	Ch.2 -Developing a network model	Homework 1
3	1/23	Ch.3 -Precedence diagrams	
	1/25	Ch.3 -Precedence diagrams	Homework 2
4	1/30	Ch.4 – Determining activity duration	
	2/1	Ch.4 – Determining activity duration	Homework 3
5	2/6	Ch.5 – Time in contract provisions	
	2/8	Ch.6 – Resource allocation and resource leveling	
6	2/13	Ch.6 – Resource allocation and resource leveling	Homework 4
	2/15	Ch.7 – Money and network schedules	
7	2/20	Ch.8 – Project monitoring and control	
	2/22	Ch.8 – Project monitoring and control	Homework 5

The *syllabus/schedule are subject to change.*

8	2/27	Ch.9 – Computer scheduling	
	2/29	MS project	Homework 6
9	3/5	Midterm Review	
	3/7	**Midterm Exam**	
10	3/12	**Spring Break**	
	3/14		
11	3/19	Ch.10 – Earned value	
	3/21	Ch.10 – Earned value	
12	3/26	Ch.10 – Earned value	Homework 7
	3/28	Ch.11 – The impact of scheduling decisions on productivity	
13	4/02	Ch.11 – The impact of scheduling decisions on productivity	Homework 8
	4/04	Ch.12 – CPM in dispute resolution and litigation	
14	4/09	Ch.13 – Short-interval schedules	
	4/11	Ch.13 – Short-interval schedules	Homework 9
15	4/16	Ch. 14 – Linear scheduling	
	4/18	Ch. 15 – PERT: Program evaluation and review techniques	Homework 10
16	4/23	Project Presentation	
	4/25	Project Presentation	Final Report
17	4/30	Final Review	
	5/2	No class	
18	5/6 -8	**Final Exam**	

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