



ENGR 411.001 Engineering Management

COURSE SYLLABUS: Fall 2024

INSTRUCTOR INFORMATION

Instructor: Dr. Anika Jannat Rimu

Office Location: Charles Austin Engineering Technology Bldg. (Ag/IT), 220

Office Hours: MW 10:00-12:00

Office Phone: 903-886-5462

University Email Address: Anika.Rimu@tamuc.edu

Preferred Communications: Email

Usual Response Time: 24 Hours

COURSE INFORMATION

Textbook Required: Project Management, The Managerial Process Erik W. Larson and Clifford F Gray / 6th edition. Publisher: McGrawHill Education ISBN- 978-0-07-809659-4 Instructor will provide lecture slides and handouts as references, too.

Course Description

Techniques relating to managing engineering activities; project management with Pert/CPM; engineer's transition into management; engineering managerial functions; motivation of individual and group behavior; productivity assessment/improvement; managing the quality function and communications. Prerequisites: Senior classification.

Student Learning Outcomes

Upon completion of this course, the student will be able to:

1. Identify and use engineering management analytical tools,
2. Effectively use engineering management tools and techniques,
3. Understand and appraise the changing business climate and how the changes have economic impact on business
4. Understand the importance of quality, cost, and schedule

The syllabus/schedule are subject to change.

5. Understand the need for effective decision-making skills and tools
6. Demonstrate an understanding of the role of Project Management tools (PERT/ CPM)
7. Demonstrate an understanding of Engineering Management Alternative Analysis and Evaluation.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

1. Effective use of scientific calculator for exams.
2. Ability to effectively use Microsoft Word, Excel, PowerPoint.

Instructional Methods

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

Student Responsibilities or Tips for Success in the Course

1. Students are responsible to know the contents of the syllabus, including amendments that may be made during the semester.
2. Students are responsible for knowing all deadlines and meeting them throughout the semester.
3. Nothing contributes to success like good attendance and personal involvement in the course throughout the semester.
4. Whenever you have difficulty understanding concepts, techniques, or assignments, do not be shy about asking the instructor for help. (That's one of the instructor's key responsibilities.)
5. Maintain a professional attitude whenever interacting with the instructor, classmates, or visitors to the course.
6. Pay particular attention to any written work submitted on assignments or exams as spelling, punctuation, and grammar are always considered in assigning grades/

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.

Assignments 25%

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| | |
|---------------|------|
| Midterm | 25% |
| Group Project | 25% |
| Final | 25% |
| TOTAL | 100% |

Assessments

The assessment criteria for the stated student learning outcomes will include homework assignments, a group 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

Zoom Video Conferencing Tool

https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom_Account.aspx?source=universalmenu

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.

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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 if possible. For urgent questions, and for questions that are not answered within 24 hours, please use e-mail correspondence.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

1. Late assignments will **NOT** 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. 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 design assignment and it will be a group project.
5. No make-up exams will be permitted unless official documentation for absences is provided (e.g., death in the immediate family, illness).

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>

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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 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](#)

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<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.

A&M-Commerce Supports Students' Mental Health

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel

AI Use in Courses

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.

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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

Department or Accrediting Agency Required Content

This course addresses ABET Student Learning Outcome 3: An ability to communicate effectively with a range of audiences, and SLO 4: An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

COURSE OUTLINE / CALENDAR

| Week | Date | Topics | Assignment |
|------|------|--|-----------------------------------|
| 1 | 8/27 | Introduction to Engineering Management. | |
| | 8/29 | Introduction to Project Management | Ch 1, pp. 1-17 |
| 2 | 9/3 | Organization Strategy and Project Selection I | Ch 2, pp. 28-40 |
| | 9/5 | Organization Strategy and Project Selection II | Ch 2, pp. 41-54 Assignment 1 |
| 3 | 9/10 | Organization: Structure and Culture | Ch 3, pp. 68-92 |
| | 9/12 | Defining the Project | Ch 4, pp. 104-126 Assignment 2 |
| 4 | 9/17 | Estimating Project Times and Costs I | Ch 5, pp. 134-148 |
| | 9/19 | Estimating Project Times and Costs II | Ch 5, pp. 149-158 Assignment 3 |
| 5 | 9/24 | Developing a Project Schedule I | Ch 6, pp. 168-183 |
| | 9/26 | Developing a Project Schedule II | Ch 6, pp 184-194 Assignment 4 |
| 6 | 10/1 | Managing Risks I | Ch 7, pp. 212-229 |
| | 10/3 | Managing Risks II and PERT | Ch 7, pp. 230-253 Assignment 5 |

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| 7 | 10/8 | Catch-up and Review for Midterm Exam | Ch 1-7 |
| | 10/10 | Midterm Exam | Ch 1-7 |
| 8 | 10/15 | Scheduling Resources and Costs I | Ch 8, pp. 258-277 |
| | 10/17 | Scheduling Resources and Costs II Group Project Begins | Ch 8, pp. 278-287 Assignment 6 |
| 9 | 10/22 | Reducing Project Duration | Ch 9, pp. 318-337 |
| | 10/24 | Being an Effective Project Manager | Ch 10, pp. 354-378 Assignment 7 |
| 10 | 10/29 | Managing Project Teams I | Ch 11, pp. 390-414 |
| | 10/31 | Managing Project Teams II Informal Project Discussion | Ch 11, pp. 415-421 |
| 11 | 11/5 | Outsourcing: Managing Interorganizational Relations | Ch 12, pp. 434-458 |
| | 11/7 | Progress and Performance Measurement and Evaluation I | Ch 13, pp. 474-486 |
| 12 | 11/12 | Progress and Performance Measurement & Evaluation II | Ch 13, pp. 487-503 Assignment 8 |
| | 11/14 | Project Closure | Ch 14, pp. 532-552 |
| 13 | 11/19 | Agile Project Management | Ch 15, pp. 562-581 |
| | 11/21 | Group Project Work | |
| 14 | 11/26 | Group Project Work | |
| | 11/28 | Thanksgiving Break | |
| 15 | 12/3 | Group Project Presentations | Final Report Due |
| | 12/5 | Catch-up and Review for Final Exam | Ch 8-15 |
| 16 | 12/10 | Final Exam: 10:30-12:30 | |

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