

ISYE 3025 Syllabus

Engineering Economy, ISYE 3025, Section MW1 & MW3, 3 Credits

Summer 2026

Instructor Information

Instructor: Dr. Tuba Ketenci;

Email: tuba.ketenci@isye.gatech.edu

General Course Information

Description

Methods of economic analysis in engineering, including time value of money, equivalence, economic measures of worth, selection rules for alternatives, income taxes, equipment depreciation, inflation, and uncertainty.

Learning Outcomes:

In this course, students will learn to apply economic and mathematical principles to analyze engineering and financial decisions. Students will be able to evaluate alternatives using methods such as time value of money, equivalence, and economic measures of worth. They will also develop the ability to incorporate factors such as taxes, depreciation, inflation, and uncertainty into decision-making.

Textbook:

Optional: Newnan, Donald G., Eschenbach, Ted G. and Lavelle, Jerome P. Engineering Economic Analysis (Eleventh Edition). Oxford University Press: Oxford. 2011.

We will use Canvas to communicate important dates and deadlines. Please make sure you are receiving important class emails via the course's distribution list. We will use Canvas exclusively for this class, including announcements, course material, and online quizzes.

Grading

Your opportunities to earn points on this course are as follows:

<u>Opportunity</u>	<u>Contribution to Course Grade</u>
Online quizzes (12 quizzes with ~51 total questions)	60%
Midterm Exam (online by midnight)	20%

Final Exam (online by midnight) 20%
Grading scale will be [90-100] = A, [80-90) = B, [70-80) = C, [60-70) = D, and <60 = F. If you score in the appropriate range, you are guaranteed at least that grade.

Description of Graded Components

Most of the material will be accessed through Canvas (PowerPoint slides, lecture videos, optional exercises, etc), including the module quizzes. 13 modules must be completed in sequence, with a quiz associated with modules 2 – 13 (there is no quiz for module 1). Each quiz is open book, open notes, not timed, and you make two attempts at it (with the highest score kept). The general idea is that you're getting "paid" to practice the topics in each module (i.e., the quiz grades, recalling that the best of the two attempts is kept), and then the midterm and final are where you get to demonstrate your mastery of the material. It is **strongly** suggested that you complete at least quizzes 2 through 7 before the midterm.

The midterm will cover the material up to that point in the semester (module 7), while the final will be cumulative (but more focused on modules 8 – 13).

Each lecture will cover the modules listed in the table, with a focus on solving additional problems related to that material. It is expected that you will have at least reviewed the PowerPoint presentations before that lecture.

Be aware that, given the duration during which the modules are available online, I will not accept any late excuses except under truly extraordinary circumstances. For example, if you choose to wait until the Monday before the midterm to start the material for the midterm and an emergency comes up --- I'm sorry, but you chose to wait.

Course Policies

Attendance

Attendance at lectures is not mandatory. Each student is responsible for all information distributed and/or presented. The participation is not graded but may be considered in borderline cases. Class participation can take the form of active participation in Piazza discussions or discussions during office hours.

As Engineers, we may have the best response to a problem, but that response must be effectively communicated; therefore, I expect that each assignment will be neat, professional, and on time. I reserve the right to penalize unprofessional responses to any assignment up to including awarding a zero (0) for the assignment. Late work will not be accepted.

Students may not use/re-use any materials from previous offerings of this course.

Re-Grading and Make-Up Policies

All graded material will be made available to students as soon as it has been graded. Once a graded item has been returned, each student has 5 days to challenge the grade. Grade challenges must be typed and include the problem in question, the original response, and a description of the grading error, all attached to the graded item. In addition, please give your name and e-mail address. All challenges will be responded to within 72 hours of receipt. Be aware that I reserve the right to re-grade the entire assignment, even if only one question is challenged.

Please do not ask for “extra work” or “extra credit,” as grades will stand as entered once the challenge period has expired. In addition, no final course grades will be changed unless a numerical error is made during grade computation.

Make-up exams will be given only if you have an official or pre-approved reason or medical emergency. If you have a personal medical emergency and miss an exam, in-class exercise, or assignment due date, you must submit valid proof (no later than 7 days after absence). However, be sure to review my comments about late work in the Class Details section; since you have practically the whole (half) semester to complete the modules, being out (for any reason) a couple of days will not be an accepted excuse. Incomplete grades will be given only if you have a valid medical reason and proof for not completing the requirements of the course (following the Institute’s rules, which include that you had passed at least 70% of the course when you were no longer able to complete it).

Core IMPACTS

This course helps students develop skills in quantitative reasoning, problem-solving, and analytical decision-making. Students will strengthen their ability to interpret data, evaluate trade-offs, and communicate results clearly—skills that are essential in engineering, business, and many other professional fields.

Email

You are responsible for all email messages sent by the instructor. Public messages intended for the entire class are sent automatically to campus accounts via listserv or may be published as an announcement on the class’s Canvas page. If the student elects to forward campus mail to an off-campus account, the student remains responsible for these messages regardless of whether or not they are successfully delivered.

Cell Phones

All cell phones should be turned off (or put into silent mode) before the beginning of class. Thank you.

Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Any student suspected of cheating or plagiarism on a quiz, exam, or assignment will be

reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations. You are expected to adhere to the Georgia Tech Honor Code. For more information, see: <https://osi.gatech.edu/students/honor-code>

In addition, faculty and students have drawn up a list of mutually beneficial expectations; please see: <http://www.catalog.gatech.edu/rules/22/>

Students may not submit any work that has been turned in for credit for a previous course. Be aware that different software techniques & methods may be utilized to check this (for example, IP addresses and activity are logged in Canvas).

AI Policy

I retain the right to modify the quizzes to use Honorlock should it become apparent that students are using AI inappropriately. While these tools can be helpful to learn concepts, they should not be used to directly answer questions on the quizzes or exams. Any student suspected of using these tools inappropriately will be given an oral exam, with the results determining whether to submit the student to OSI.

Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. The Student-Faculty Expectations articulate some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

Diversity and Disability Statement

Georgia Tech values diversity and inclusion; we are committed to a climate of mutual respect and full participation. Our goal is to create learning environments that are usable, equitable, inclusive, and welcoming. If there are aspects of the instruction or design of this course that result in barriers to your inclusion or accurate assessment or achievement, please notify the instructor as soon as possible. Students with disabilities should contact the Office of Disability Services to discuss options for removing barriers in this course, including accommodations. ODS can be reached at 404.894.2563, mdsinfo@gatech.edu, or disabilityservices.gatech.edu

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services (404-894-2563) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.