

Syllabus - Fall 2021

Excluding materials for purchase, syllabus information may be subject to change. The most up-to-date syllabus is located within the course in HuskyCT.

Course and Instructor Information

Course Title: Engineering Economics (CE 2211)

Credits: 1

Format: Face-to-Face

Prerequisites: MATH 1122 or 1132

Meets: Friday 10:10-11:00 AM in CAST 212

Professor: Malaquias Peña

Teacher Assistant: Yue Yin

Emails: mpena@uconn.edu, yue.yin@uconn.edu

Online office Hours: TBD

Course Materials

Required course materials should be obtained before the first day of class.

Required textbooks are available for purchase through the [UConn Bookstore](#) (or use the Purchase Textbooks tool in HuskyCT). Textbooks can be shipped ([fees apply](#)).

Required Textbook and Online Material:

- McGrawHill Connect Software
- Prescribed textbook for this course is a *custom* textbook that is prepared by McGraw-Hill titled "Engineering Economy I: CE 2211". The custom book is a compilation of chapters from Blank, L. and A. Tarquin. [Basics of Engineering Economy, 8th Edition](#), McGraw-Hill, 2014
- Lecture notes and other materials will be made available on the HuskyCT course website

Additional course readings and media are available within HuskyCT, through either an Internet link or Library Resources

Required computer software for the course:

1. Scientific calculator to compute factor formulas

Course Description

The course introduces concepts and economic analysis procedures to assist with decision-making in engineering analysis. Concepts include Time value of money and cash flow diagrams;

simple, compound, nominal, and effective interest rate; single and series payments. Methods to compare project alternatives include present, future, and annual worth, and rate of return analysis.

Course Objectives

By the end of the semester, students should be able to:

1. Understand and apply fundamental concepts and use of terminology of engineering economics.
2. Derive and use the engineering economy factors to account for the time value of money.
3. Use multiple factors to find equivalent amounts for cash flows that have nonstandard placement.
4. Make computations for interest rate and cash flows that are on a time basis other than a year.
5. Utilize Present, Future Worth Analysis and Annual Worth Analysis techniques to evaluate and select alternatives.
6. Perform Incremental Rate of Return analysis to select best alternative of multiple projects.

Course Requirements and Grading

Summary of Course Grading:

Course Components	Weight
Reading Assignments (6)	5 %
Quizzes (6)	10 %
Homework (6)	25 %
Exam Practice & Class Participation	Bonus (5 %)
Partial Exam I	15 %
Partial Exam II	20 %
Final Exam	25 %

Homework Assignments

- There will be a total of 6 assignment sets.
- Each homework assignment will include about 10 problems.
- Due dates will be as noted in the class schedule
 - Less than 24h late submissions will be graded with a 20% penalty
 - More than 24h late submissions will not be graded
 - It is the responsibility of the student to make sure her/his assignments are submitted timely.
- Instructions for homework submission,
 - Each assignment will have a HuskyCT link to Connect.
- While collaboration is acceptable and encouraged, copying and/or any forms of cheating will not be tolerated.
- Homework solutions will not be posted. Review the comments made on your homework.

Connect Assignments and Quizzes

- Connect assignments and quizzes will be accessed through HuskyCT
- It is expected to have a total of six quizzes. One for each learning module.
- Each quiz will include True/False and Multiple Choices questions selected from the McGrawHill Connect.

Recitation Sessions

At the end of each module there will be a Recitation Session right after the lecture –see class schedule. The power point presentation with these exercises and solutions will be posted afterwards.

Additional Practice

Additional questions, exercises and reading material based on the McGrawHill Connect will be made available through HuskyCT.

Partial Exams

These exams will evaluate your knowledge on the material covered in Chapters 1 & 2 for Partial 1, and 1 through 4 for Partial 2. The exams will take place in the classroom during class as scheduled. The exams will have a time limit of 50 minutes.

Final Exam (30%)

This exam will evaluate your knowledge on the material covered in Chapters 1 through 8.

Grading Scale:

Grade conversion chart			
Excellent	A	4	91 - 100
	A-	3.7	89 - 90
Very Good	B+	3.3	87 - 88
Good	B	3	81 - 86
	B-	2.7	79 - 80
	C+	2.3	77 - 78
Average	C	2	71 - 76
Fair	C-	1.7	69 - 70
Poor	D+	1.3	67 - 68
	D	1	61 - 66
Merely Passing	D-	0.7	59 - 60
Failure	F	0	<59

Due Dates and Late Policy

All course due dates are identified in the Course Schedule posted on HuskyCT. The Course Schedule may be subject to change if unexpected situations such as a prolonged power outage happens. Deadlines are based on Eastern Standard Time; if you are in a different time zone, please adjust your submittal times accordingly. *The instructor reserves the right to change dates accordingly as the semester progresses. All changes will be communicated in an appropriate manner.*

Feedback and Grades

My TA and I will make every effort to provide feedback and grades within a period of 24 hrs. To keep track of your performance in the course, refer to My Grades in HuskyCT.

Student Responsibilities and Resources

As a member of the University of Connecticut student community, you are held to certain standards and academic policies. In addition, there are numerous resources available to help you succeed in your academic work. Review these important [standards, policies and resources \(https://onlinestudent.uconn.edu/learn--more/#POL\)](https://onlinestudent.uconn.edu/learn--more/#POL), which include:

- Academic Integrity
Plagiarism Resources: <https://lib.uconn.edu/services/ask/get-help/writing/plagiarism-resources/>
- Netiquette and Communication
- Adding or Dropping a Course
- Academic Calendar
- Policy Against Discrimination, Harassment and Inappropriate Romantic Relationships
- Sexual Assault Reporting Policy

Students with Disabilities

The University of Connecticut is committed to protecting the rights of individuals with disabilities and assuring that the learning environment is accessible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, please let me know immediately so that we can discuss options. Students who require accommodations should contact the Center for Students with Disabilities, Wilbur Cross Building Room 204, (860) 486-2020 or <http://csd.uconn.edu/>.

Blackboard measures and evaluates accessibility using two sets of standards: the WCAG 2.0 standards issued by the World Wide Web Consortium (W3C) and Section 508 of the Rehabilitation Act issued in the United States federal government.” (Retrieved March 24, 2013 from [Blackboard's website](#))

Software/Technical Requirements

The software/technical requirements for this course include:

- HuskyCT/Blackboard
- [Adobe Acrobat Reader](#)
- Microsoft Office (free to UConn students through uconn.onthehub.com)
- Dedicated access to high-speed internet with a minimum speed of 1.5 Mbps (4 Mbps or higher is

recommended).

NOTE: This course has NOT been designed for use with mobile devices.

Help

[Technical and Academic Help](#) provides a guide to technical and academic assistance.

This course's content is completely facilitated online using the learning management platform, [HuskyCT and Connect](#). If you have difficulty accessing HuskyCT, you have access to the in person/live person support options available during regular business hours through the [Help Center](#). You also have [24x7 Course Support](#) including access to live chat, phone, and support documents.

Minimum Technical Skills

To be successful in this course, you will need the following technical skills:

- Use electronic mail with attachments.
- Save files in commonly used word processing program formats.
- Copy and paste text, graphics or hyperlinks.
- Work within two or more browser windows simultaneously.
- Open and access PDF files.

University students are expected to demonstrate competency in Computer Technology. Explore the [Computer Technology Competencies](#) page for more information.

Evaluation of the Course

Students will be provided an opportunity to evaluate instruction in this course using the University's standard procedures, which are administered by the [Office of Institutional Research and Effectiveness](#) (OIRE).

Additional informal formative surveys may also be administered within the course as an optional evaluation tool.

Schedule -Online Class Activities -Fall 2021
Connect Assignment Sets consist of Reading, Quiz, and Homework

Week	Date	Topic	Reference Sections	Assignment Issued Due
1	M-08/30	Foundations -Part I	Ch. 1.1 - 1.6	Set 1
	F -09/03	Lecture		
2	M-09/05	Foundations -Part II	Ch. 1.7 - 1.9	
	F -09/10	Lecture --Recitation Session 1		
3	M-09/13	Factors -Part I	Ch. 2.1 - 2.4	Set 2 Set 1
	F - 09/17	Lecture		
4	M-09/20	Factors -Part II	Ch. 2.1 - 2.6	
	F - 09/24	Lecture --Recitation Session 2		
5	W-09/29	Practice Exam I (Online)		Set 2
	F -10/01	** Partial EXAM I (Up to HW 2) **		Set 3
6	M-10/04	Factors -Part III --Combined Factors	Ch. 3.1 - 3.3	
	F - 10/08	Lecture --Recitation Session 3		
7	M-10/11	Interest Rate Statements -Part I	Ch. 4.1 - 4.3	Set 4 Set 3
	F- 10/15	Lecture		
8	M-10/18	Interest Rate Statements -Part II	Ch. 4.4 - 4.7	
	F - 10/22	Lecture --Recitation Session 4		
9	W-10/27	Practice Exam II		Set 4
	F - 10/29	** Partial EXAM I (Up to HW 4) **		Set 5
10	M-11/01	Present Worth Analysis for alternative selection	Ch. 5.1 - 5.3	
	F -11/05	Lecture		
11	M-11/08	FWA and CC for alternative selection	Ch. 5.4 - 5.5	
	F - 11/12	Lecture --Recitation Session 5		
12	M-11/15	Annual Worth Analysis for alternative selection	Ch. 6.1 - 6.5	Set 6 Set 5
	F -11/19	Lecture		
	11/21-28	Thanksgiving Recess		
13	M-11/29	Rate of Return: Multiple Projects	Ch. 7.2, 8.1 - 8.4	
	F - 12/04	Lecture --Recitation Session 6		
14	W-12/06	Practice Final Exam		Set 6
	F -12/10	Course Review		
	TBD	** FINAL EXAM - Cumulative **		

