

IE 3913: Engineering Economy

Hugh Medal

Syllabus, Spring 2015

COURSE INFORMATION

Instructor

Hugh Medal

Assistant Professor, Department of Industrial Engineering

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Phone: 662-325-3923

Email: hugh.medal@msstate.edu (for best results, please use this address rather than emailing me through mycourses)

Office Hours

My office hours for this class will be: 1:15-2pm on Mondays, 2-2:30pm on Tuesdays, 10-11am on Wednesdays, 10:30-11:30am on Thursdays, and 11-11:45am on Fridays. I will also typically be available to talk immediately after class.

I will try notify you if I am ever not available during these times. You are welcome to drop in during my office hours; however, if you wish to make sure that you don't have to wait for another student, I would encourage you to schedule an appointment via <https://hughmedal.youcanbook.me/>. If you need to meet with me another time, please arrange with me beforehand.

Communication: Best Practices

Emergencies Visit or call the ISE office ((662) 325-3865); they will know how to get ahold of me.

Private communication Please email me at hugh.medal@msstate.edu.

Questions about topics Please use the discussion board on MyEngineeringLab. This way both me and your classmates can help you.

Course materials

Required textbook *Engineering Economy* (16th edition), William G. Sullivan, Elin M. Wicks, C. Patrick Koelling, Upper Saddle River, NJ: Prentice Hall, 2014.

You will also need to purchase an access code for MyEngineeringLab. The ISBN-10 for MyEngineeringLab and an electronic version of your textbook is 0133750213. The ISBN for the access code only is 0133455343.

Prerequisites

This class does not require much prerequisite knowledge of mathematics beyond College Algebra. However, it would help to have some knowledge about engineering and business.

Course Description

An introduction to economic decision-making with an emphasis on time value of money. You will learn how to evaluate an investment projects and how to compare multiple investment projects and select the best one. We will also discuss depreciation and taxes.

PRACTICE

Homework

ABOUT	
<i>Purpose</i>	To prepare you for the quizzes and tests.
<i>Content</i>	Problems from the textbook.
<i>Collaboration</i>	Allowed. However, you should make sure you know how to do the problems.
<i>Submission format and method</i>	Complete on MyEngineeringLab.
<i>Due</i>	See schedule on MyEngineeringLab.
<i>Procedure</i>	Outside of class. You will be allowed three attempts at each question. No time limit.
<i>Feedback and Grading</i>	Your grade will be based on the answer to your last attempt. No partial credit.

ASSESSMENT

Quizzes

ABOUT	
<i>Purpose</i>	To prepare you for the tests.
<i>Content</i>	Problems from the textbook.
<i>Collaboration</i>	You may work with students in class, but you may not consult with students outside of class.
<i>Materials allowed</i>	Any.
<i>Submission format and method</i>	Complete on MyEngineeringLab.
<i>Due</i>	See schedule on MyEngineeringLab.
<i>Procedure</i>	In-class with a time limit of 55 minutes. You will be allowed two attempts at each question.
Feedback and Grading	Answers graded automatically by computer. No partial credit.

Tests

ABOUT	
<i>Purpose</i>	To test your understanding of the material.
<i>Content</i>	Problems from the textbook.
<i>Collaboration</i>	None.
<i>Materials allowed</i>	None.
<i>Submission format and method</i>	Complete on MyEngineeringLab.
<i>Due</i>	See schedule on MyEngineeringLab.
<i>Procedure</i>	In-class with a time limit of 55 minutes. You will be allowed one attempt at each question.
Feedback and Grading	Answers graded automatically by computer. Wrong answers will be checked for possible partial credit.

Final Test

ABOUT	
<i>Purpose</i>	To test your understanding of the material.
<i>Content</i>	Problems from the textbook.
<i>Collaboration</i>	None.
<i>Submission format and method</i>	Complete on MyEngineeringLab.
<i>Due</i>	See schedule on MyEngineeringLab.
<i>Procedure</i>	In-class with a time limit of 180 minutes. You will be allowed one attempt at each question.
Feedback and Grading	Answers graded automatically by computer. Wrong answers will be checked for possible partial credit.

EXTRA CREDIT PROBLEMS

Periodically, optional extra credit problem sets will be posted.

ABOUT	
<i>Purpose</i>	To give you an opportunity to earn extra credit.
<i>Content</i>	Challenging problems from the textbook.
<i>Collaboration</i>	Allowed, as long as everyone is contributing to the solution.
<i>Submission format and method</i>	Complete on MyEngineeringLab.
<i>Due</i>	See schedule on MyEngineeringLab.
<i>Procedure</i>	Outside of class. You will be allowed one attempt at each question. No time limit.
<i>Feedback and Grading</i>	Answers graded automatically by computer. No partial credit.

DETERMINING YOUR FINAL GRADE

Grade Distribution

Your final grade will be based on the proportion of points that you earn on reading memos, exams, review exam, and the final project.

Type	Estimated Points Each	Estimated Quantity	Total Points	Approximate Percentage
Best homeworks (2 dropped)	10	9	90	9%
Best quizzes (2 dropped)	20	9	180	19%
Tests	100	4	400	41%
Final	300	1	300	31%
SUM		23	970	100%

Grading Scale

The following table shows the percentages needed to earn each letter grade. The last two columns show the percentages and points needed to be guaranteed a particular letter grade. However, even if you don't meet the criteria to be guaranteed a particular letter grade, you can still earn that grade if you fall in a gray area. If you in a gray area, your grade may be bumped up based on how many gray points you earn (see below).

	Gray Area		Guaranteed	
	Percentage	Points	Percentage	Points
A	89%	864	90%	873
B	78%	757	80%	776
C	67%	650	70%	679
D	55%	534	60%	582

GRAY POINTS

Study Plan

MyEngineeringLab creates a plan for each part of the course, consisting of practice sections and quizzes. If your grade is in a gray area, I will consider your performance and participation on the study plan questions.

Attendance

Our classroom will be equipped with an automatic card read that tracks attendance. If your grade is in a gray area, I will consider your attendance when deciding on your final grade.

Class Participation

I plan to use a tool call Learning Catalytics, which allows you to use a smart device or computer to answer questions during class. If your grade is in a gray area, I will consider how many questions you answered.

Reading Quizzes

Reading quizzes, which earn gray points, will be assigned periodically.

ABOUT	
<i>Purpose</i>	To encourage you to read the textbook before class.
<i>Content</i>	Questions based on the textbook.
<i>Collaboration</i>	None
<i>Submission format and method</i>	Take the quiz on MyEngineeringLab.
<i>Due</i>	See schedule on MyEngineeringLab..
Feedback and Grading	Graded automatically by the computer. No partial credit.

IMPORTANT DATES

- There will be a review exam on April 30. Time to be determined.
- Dates for homeworks, quizzes, and tests will be posted on MyEngineeringLab.

GUIDELINES AND POLICIES

Absences

My absense policy is based on the MSU's policy, which can be accessed from: <http://www.policies.msstate.edu/policypdfs/1209.pdf>.

If a student must miss a test or quiz due to an excused absence, they should arrange a time to take the time with a proctor within one business day before or after the exam, if possible. Otherwise, the student will need to submit an authorized note indicating that this was not possible. A proctor can be used from the Learning Center (<http://www.tlc.msstate.edu/services/proctor>) or some other authorized source.

The following are guaranteed to be excused absences:

- Participation in an authorized university activity.
- Death in a student's immediate family.
- Participation in legal proceedings or administrative procedures that require a student's presence.
- Religious holy day.
- Illness that is too severe or contagious for the student to attend class.
- Required participation in military duties.
- Mandatory admission interviews for professional or graduate school which cannot be rescheduled.

The following may be eligible for excused absences:

- An illness or injury of a dependent or immediate family member (father, mother, sister, brother, son, daughter, or guardian only).

Late Work

Late homework and extra credit problems. will be assigned a penalty of 25% per day on questions submitted late. No late reading quizzes will be accepted.

Academic Honesty

We will comply with the MSU Honor Code (<http://www.honorcode.msstate.edu/pdf/honor-code.pdf>), which requires me to report cases of academic dishonesty (page 8). Examples of academic dishonesty in this class include by are not limited to the following:

- Using unauthorized materials/resources on a test
- Communicating with people outside the class during a quiz or test
- Communicating or copying work on a test
- A conversation about an exam between a student who has taken the exam and a student who has not yet taken it

Students Needing Extra Accommodation

If there are any issues that may affect your learning, please let me know. I would like to make accommodations in any way I can, in collaboration with Student Support Services (<http://www.sss.msstate.edu/disabilities/>). In addition, you may wish to consult with Student Support Services yourself to understand how you can receive help.

A RECOMMENDED RESOURCES

- Financial calculator apps
 - EZ Financial Calculators (iPhone and iPad)
 - Financial Calculators (Android)
 - www.ultimatecalculators.com (web)