

# MIME 2600 – Engineering Economics

## Fall 2007

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**Classroom:** NI 1027  
**Classes:** Mondays, Wednesdays, and Fridays; 1:00 PM to 1:50 PM  
**Instructor:** Dr. Matthew Franchetti  
**Phone:** 419-530-8051  
**E-mail:** mfranch@utnet.utoledo.edu (best way to get in touch with me)  
**Office:** NI 4006-E  
**Office Hours:** Mondays, Wednesdays, and Fridays 12:00 PM to 1:00 PM (and by appointment)

### Textbooks:

1. Fundamentals of Engineering Economics, 1<sup>st</sup> edition, by Chan S. Park, Prentice Hall (2004)
2. Economics (Essentials of Economics by Schiller), Published by Primis (Special Order)

**Prerequisite:** Sophomore Standing

**Course Description:** This course is a comprehensive study of micro-economic and macro-economic theories. Methods of economic analysis, including the time value of money, are described. Economic decision criteria are used to select best alternatives. Relationships to professions other than engineering are explored. Impacts of economic decisions on various sectors of society are discussed.

### Course Objectives:

- Understand the importance of the time value of money and the impact of the other economic concepts
- Apply techniques and concepts (present worth, annual worth and rate of return analyses) which will allow for improved engineering decisions regarding costs, accounting, and optimum economic choices
- Make better financially prudent decisions in your professional and personal lives
- Learn the fundamentals of macro-economic and micro-economic theories
- Understand how the world economic functions
- Understand how the US economy functions

### Grading:

<u>Section 001</u>		<u>Section 091 (Honors)</u>	
Homework	10%	Homework	10%
Examination 1	30%	Examination 1	25%
Examination 2	30%	Examination 2	25%
<u>Final Examination</u>	<u>30%</u>	Final Examination	25%
TOTAL	100%	<u>Individual Case Study</u>	<u>15%</u>
		TOTAL	100%

- Any act of dishonesty may result in a grade of 'F' or a dismissal from the class in accordance with University of Toledo and College of Engineering academic policy.

**Grading Scale:**

100 – 90	A/A-	69 – 60	D+/D-
89 – 80	B+/B-	59 – 0	F
79 – 70	C+/C-		

**Homework:** Homework will be assigned regularly and be will due at the beginning of class on the date specified (usually Fridays). Homework will count towards 10% of your final grade and it will be based on attendance. Additionally, it is suggested that you photocopy the assignment to allow you to write comments during the Friday's class since you will be handing in the originals at the beginning of class. It will be to your advantage to completely understand the homework, as exams may strongly reflect the assigned problems.

**Examinations:** Exams will NOT be comprehensive and will last the entire class period. *Make-up exams will not be given except in extreme documented circumstances and then only upon arrangement made prior to the scheduled examination.*

**Honors Individual Case Study:** A five to eight page paper related to an engineering economics topic is required. Appointments must be made with the instructor to individually discuss appropriateness of topics. Papers are due on November 14, 2007 and are worth 15% of your grade.

If you have any questions or comments regarding the class or course material please see me or e-mail me. I will be more than happy to discuss these issues with you.

**Class Schedule: (Subject to Change)**

<b>Week Starting</b>	<b>Chapters</b>	<b>Material Covered</b>
Aug. 20	Schiller	Introduction, Syllabus, and Supply and Demand
Aug. 27	Schiller	The U.S. Economy and Consumer Demand
Sept. 3	Schiller	Supply Decisions and Aggregate Supply and Demand
Sept. 10	1/2	Engineering Economic Decisions and the Time Value of Money
Sept. 17	2/3	The Time Value of Money and Money Management
Sept. 19	<b>EXAM 1: Schiller Book Only</b>	
Sept. 24	4	Inflation
Oct. 1	5	Present Worth Analysis
Oct. 8	5/6	Present and Annual Worth Analysis
Oct. 15	<b>FALL BREAK: Oct. 15 (No Class)</b>	
Oct. 15	6	Annual Equivalence Analysis
Oct. 22	7	Rate of Return
Oct. 24	<b>EXAM 2: Chapters 1 – 6</b>	
Oct. 26	<b>Last Day to Withdraw</b>	
Oct. 29	8	Depreciation
Nov. 5	9	Cash Flow Analysis
Nov. 12	<b>VETERANS DAY Nov. 12 (No Class)</b>	
Nov. 12	10	Uncertainty
Nov. 14	<b>Honors Individual Project Due</b>	
Nov. 19	11	Replacement Decisions
Nov. 21	<b>THANKSGIVING BREAK: Nov. 21 – Nov. 23</b>	
Nov. 26	12	Benefit-Cost Analysis
Dec. 3	13	Financial Statements/Income Tax
Dec. 12	<b>FINAL EXAM: Chapters 7 - 13 (12:30 PM to 2:30 PM)</b>	