

1. Course number and name: GE 261 – Introduction to the Business Side of Engineering
2. Credits and contact hours: 1 credit, 16 contact hours
3. Instructor or course coordinator's name: Harry S. Wildblood, 105 Transportation Building, Phone: (217) 265-5359, Email: [wildblod@illinois.edu](mailto:wildblod@illinois.edu)
4. Text book, title, author, and year: No Textbook
  - a. other supplemental materials: Course lecture notes, sample exams, homework and keys, sample reports, etc., are all available online on Compass2g.
5. Specific course information
  - a. brief description of the content of the course (catalog description): Important elements and metrics of business and contemporary engineering economics: wealth creation, cash flow diagrams, equivalence, internal rate of return, net present value, present worth, breakeven analysis, financial calculations using MS Excel, companies, corporations, profits, prices, balance sheets, income statements, and the basics of business plan writing. Particular emphasis is given to preparation for the economic analysis component of engineering practice. One credit hour.
  - b. prerequisites or co-requisites: Sophomore standing
  - c. indicate whether a required, elective, or selected elective (as per Table 5-1) course in the program: Required course for GE and IE majors
6. Specific goals for the course
  - a. specific outcomes of instruction:
    - understand the basic mathematics and applications of time-value of money calculations and economic equivalence [a]
    - evaluate/design alternatives to meet specific economic and business requirements [c]
    - make decisions based on the National Society of Professional Engineers Code of Ethics for Engineers [f]
    - develop an original business plan for consideration by investors [g]
    - use and develop tools with MS Excel for economic analysis [k]
  - b. explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course:
    - (a) an ability to apply knowledge of mathematics, science, and engineering.
    - (c) an ability to design a system, component, or process to meet desired goals.
    - (f) an understanding of professional and ethical responsibility.
    - (g) an ability to communicate effectively.
    - (k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
7. Brief list of topics to be covered: Economic equivalence, cash flow diagrams, present worth, effective interest rates, internal rate of return, capital projects, economic decision making

with various equivalence tools and techniques, the use of MS Excel in economic decision making, business plan writing, financial metrics, balance sheets, income statements

8. Grade determination: Course Grades: 90 – 100 A, 80 – 89.999 B, 70 – 79.999 C, 60 – 69.999 D, below 60 F, (no +/- grades will be assigned). Weighting of coursework for grading purposes:
- 10%: Individual homework assignments
  - 6%: Two unannounced quizzes (3% each)
  - 30%: Business Plan Project
  - 27%: Exam 1
  - 36%: Exam 2
9. Additional Information: (Optional information added here)

**Lecture/Exam Location / Time:** 103 Transportation Building / 2-2:50PM TR

**Lecture Preparations:** As a rule, read and study the next 25 slides for each lecture. You will be responsible for this material for the quizzes.

**Exams:** Exams will be given during the normal class period. You will have 50 minutes to complete the exams. Arrive promptly as the exams will begin on the hour. Be prepared with calculators, batteries, and pencils for exams. Cell phones must be off. No cheat sheets, lists of equations or notes permitted. A doctor's excuse is required for late homework or missing an exam.

**Homework:** Individual homework assignments must be uploaded in pdf (Adobe Acrobat) file format to Compass by 1:30 PM on the date due indicated in the course syllabus. You will have two attempts to upload the homework. Late homework will have 10 points deducted. Homework will not be accepted after the answer key is visible on compass.

**Graded Exams and Homework Pickup:** You may pick up your graded exams in the grader's office during office hours, or by appointment. After 3 weeks, papers will be shredded.

**Tentative Schedule of Class sessions:**

Session	Day	Date	Topic	Homework Due
1	T	9/20/2016	Time Value of Money	
2	R	9/22/2016	Time Value of Money	
3	T	9/27/2016	Time Value of Money	HW-1
4	R	9/29/2016	Time Value of Money	
5	T	10/4/2016	Time Value of Money	HW-2
6	R	10/6/2016	Time Value of Money	
7	T	10/11/2016	Time Value of Money	HW-3
8	R	10/13/2016	Time Value of Money	
9	T	10/18/2016	Time Value of Money	HW-4
10	R	10/20/2016	Exam 1	
11	T	10/25/2016	Business Plans	
12	R	10/27/2016	Financial Statements	
13	T	11/1/2016	Financial Statements	HW-5
14	R	11/3/2016	Business Plans	
15	T	11/8/2016	Review and Misc.	HW-6 & Bus Plan
16	R	11/10/2016	Exam 2 (end of course)	