



THE CITADEL

ELECTRICAL & COMPUTER ENGINEERING

CIVL 314-03, Engineering Economy

Course Syllabus for Fall 2012

MW 1300 – 1350, Room: Grimsley 328

- Instructor:** Dr. Jason S. Skinner, Grimsley 310, Phone: 953-3352
Email - jason.skinner@citadel.edu
- Office Hours:** MWF 0900 – 1000, MW 1100 – 1200, TR 1500 – 1700, and by appointment
- Textbook:** *Engineering Economy*, 7th Edition, L. Blank and A. Tarquin
- Websites:** Professor - <http://ece.citadel.edu/skinner>
Course - <http://ece.citadel.edu/courses>
The course website will be used to post course information (such as this syllabus), lecture slides and notes, homework and project assignments, corrections and answers to questions about assignments, and individual grades.
- Description:** Topics include the time value of money, equivalence, simple and compound interest, nominal and effective interest rates, present worth and capitalized cost evaluation, equivalent uniform annual worth evaluation, rate of return evaluation, benefit/cost ratio evaluation, depreciation, corporate and individual income tax, after-tax economic analysis, and engineering ethics as applied by practicing engineers.
- Objectives:** Time value of money and use of P, F, A, and G factors
Nominal and effective interest rates
Capitalized cost and equivalent uniform annual worth for alternative comparison
Rate of return analysis for alternative comparison using MARR as a basis
Benefit cost ratio for alternative comparison, including associated ethical considerations
Depreciation calculations
Corporate taxes, taxable income and cash flow after taxes

Important Dates:

Tuesday, August 28SCCC Drop/Add ends
Monday, September 17 (tentative) Test 1
Wednesday, October 24Leadership Development Day (No Classes)
Monday, October 29 (tentative) Test 2
Tuesday, November 6General Election Day (No Classes)
Wednesday, November 28 (tentative) Test 3
Friday, November 16Fall Break begins
Sunday, November 25Fall Break ends
Thursday, December 6SCCC Classes end
Wednesday, December 12 @ 0800 Final Exam

Course Outline:

Reading	Topics	Time Frame (approx)
Chapter 1	Course Overview, Introduction	75 minutes
Chapter 1	Interest Calculations, Spreadsheet Application	150 minutes
Chapter 2	Engineering Economy Factors	300 minutes
Chapter 3	Combining Factors	75 minutes
Test 1	Chapters 1,2,3	September 17
Chapter 4	Nominal and Effective Interest Rates	300 minutes
Chapter 5	Present Worth Analysis	300 minutes
Chapter 6	Annual Worth Analysis	150 minutes
Test 2	Chapters 4,5,6	October 29
Chapter 7	Single Alternative ROR	150 minutes
Chapter 8	Multiple Alternatives ROR	150 minutes
Chapter 9	Cost Benefit Analysis	150 minutes
Test 3	Chapters 7,8,9	November 28
Chapters 16,17	Depreciation and Taxes	150 minutes
Final Exam	Chapters 1 - 9, 16, 17	December 12

Homework:

Homework assignments will be given for each topic and will be collected at the BEGINNING of the class period on the day that it is due. Exact due dates will be provided on the course website, by email notification, and in class when the homework is assigned. Homework is to be done on the front side only of engineering paper in a neat and easy to understand format with **no more than one problem per page**. The submitted homework solution should be able to stand on its own, and you must **indicate your answer to each part of each problem**. It should provide enough information so that it is not necessary to consult the actual published problem to understand the solution. **Late or incorrectly formatted homework will not be accepted and will be given a zero grade**. If you will be absent on the day of an assignment, arrange to have a classmate turn in your work for you. Homework will be graded for effort, completeness, and neatness (legibility). You may obtain assistance when doing your homework. Copying of homework is not the same as assistance. Your homework is a graded assignment and must be your own work.

Projects:

Projects involving Excel may be assigned throughout the semester in order to reinforce the concepts presented in the lecture and the text. **Unless specified otherwise, collaboration is not allowed on projects.**

Tests:

There will be three in-class tests and one final exam. **Collaboration is not allowed on tests or final exams.** The final exam will be cumulative. Assigned tests are required. Unless authorized to the contrary by Dr. Skinner, such tests take precedence over all other duties or activities. If you know you will miss an exam, you must let Dr. Skinner know as soon as possible so a make-up exam time can be arranged. Make-up exams will only be given for those students that have made a reasonable attempt to contact Dr. Skinner.

Grading: Students will be graded on everything that is required to be turned in. All exams are scheduled well in advance. Due to the potential unfairness of make-up exams, they will only be given in extreme circumstances. Your final grade in the course will be determined as follows:

Homework/Projects/Class Participation	25%
3 In-Class Tests	each 15%
Final Exam	30%

The grading scale used in this course is:
A = 90 - 100, B = 80 - 89, C = 70 - 79, D = 60 - 69, F = 59 or below.

Attendance: Attendance is mandatory. Unless circumstances preclude it, it is your responsibility to notify Dr. Skinner of any schedule conflicts or excused absences that will result in your missing class. It is college policy that a grade of F may be awarded to a student if that student misses more than 20% of the course meetings (excused or unexcused). For this course, 6 classes constitute 20% of the class meetings.

Classroom Decorum: No food or drink is permitted in the classrooms of this building. Proper attire is encouraged, and ECE department policy prohibits hats, cutoffs, shorts, tank tops, and feet without socks in class.

Special Needs Students currently documented or anticipate being documented as Learning Disabled (LD), as having Attention Deficit Disorder (ADD), or with another condition for which you might need special accommodation during the semester must provide written documentation of the condition and of the accommodation needed to me within two weeks of the semester start. You may then choose, by notifying Dr. Skinner before the start of each exam or assignment, whether you will need any accommodation. Notification after the start of an exam or last minute notification on an assignment will not be accepted. Please Note: To request academic accommodations (for example, a note taker), students must also register with Academic Support/Special Services, 953-1820, located in Thompson Hall. It is the campus office responsible for reviewing documentation provided by students requesting academic accommodations, and for accommodations planning in cooperation with students and instructors, as needed and consistent with course requirements.

Cheating and Collaborative Work According to The Citadel’s policies for the preparation of work performed outside the classroom:

All papers, reports, senior essays, theses, or other written work performed outside the classroom for which a grade is received will be the individual’s work and is subject to the limitations imposed by the definition of plagiarism.

According to Webster’s New International Dictionary, 3rd Edition: to plagiarize is defined as ”to steal and pass off as one’s own the ideas or words of another” or to ”present as new and original an idea or product derived from an existing source.”

CHEATING IN ANY FORM WILL BE FULLY PROSECUTED.

Dr. Skinner's Schedule for Fall 2012

Monday

0800 – 0850	ELEC 416-01 Communications Engineering	Grimsley 322
0900 – 1000	OFFICE HOUR	Grimsley 310
1000 – 1050	ELEC 309-01 Signals and Systems	Grimsley 305
1100 – 1200	OFFICE HOUR	Grimsley 310
1300 – 1350	CIVL 314-03 Engineering Economy	Grimsley 328

Tuesday

1100 – 1200	Faculty Committee Meetings	On Campus
1500 – 1700	OFFICE HOURS	Grimsley 310
1715 – 1830	ELEC 309-81 Signals and Systems	Grimsley 322
1845 – 2000	ELEC 416-81 Communications Engineering	Grimsley 328

Wednesday

0800 – 0850	ELEC 416-01 Communications Engineering	Grimsley 322
0900 – 1000	OFFICE HOUR	Grimsley 310
1000 – 1050	ELEC 309-01 Signals and Systems	Grimsley 305
1100 – 1200	OFFICE HOUR	Grimsley 310
1300 – 1350	CIVL 314-03 Engineering Economy	Grimsley 328

Thursday

1100 – 1200	Department Faculty Meeting	Grimsley Hall
1500 – 1700	OFFICE HOURS	Grimsley 310
1715 – 1830	ELEC 309-81 Signals and Systems	Grimsley 322
1845 – 2000	ELEC 416-81 Communications Engineering	Grimsley 328

Friday

0800 – 0850	ELEC 416-01 Communications Engineering	Grimsley 322
0900 – 1000	OFFICE HOUR	Grimsley 310
1000 – 1050	ELEC 309-01 Signals and Systems	Grimsley 305