ISEN 303: ENGINEERING ECONOMIC ANALYSIS

Fall 2013

[Location] ETB 3024
[Credit] 3.0 hours
[Time] Sec 502 11:30am - 12:20pm
Sec 501 12:40am - 1:30pm

[Instructor] Justin Yates - Assistant Professor
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[Office Hours] Wednesdays 3:00 - 5:00pm
Other by appointment

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[Office Hours] Thursdays 2:00 - 4:00pm
Other by appointment


[Course Description] Principles of economic equivalence; time value of money; analysis of single and multiple investments; comparison of alternatives; capital recovery and tax implications; certainty; uncertainty; risk analysis; public sector analysis and break-even concepts.


[Supplemental Material] Python Programming Language - Official Website (http://www.python.org)
Any one of the myriad Engineering Economy textbooks currently in circulation

[Grading Policy] [Grades]
Exams 40% A: ≥ 90% D: 60% - 69%
Project 30% B: 80% - 89% F: ≤ 60%
Homework 30% C: 70% - 79%

[Class Attendance] Class attendance will not be taken.

[Topical Outline]
3. Interest and Equivalence 12. Income Taxes
4. Interest Formulas 13. Replacement Analysis
6. Annual Cash Flow Analysis 15. Selection of a Minimum Attractive Rate of Return
7. Rate of Return Analysis 16. Economic Analysis in the Public Sector
8. Choosing the Best Alternative 17. Accounting and Engineering Economy
9. Payback Period

1 all sections meet MWF
2 the distribution provided is the MINIMUM numeric requirement to GUARANTEE the corresponding letter grade. The instructor reserves the right to revise this distribution as necessary.
3 this outline is tentative and may change through the semester at the discretion of the instructor
There will be a total of three exams given during the course of the semester. The final exam is not mandatory and each student reserves the right to determine whether she/he will write the final exam. Grading is dependent upon this decision, with each student choosing one of the following two options:

Option 1: Exam 1 – 20%, Exam 2 – 20%
Option 2: Exam 1 – 10%, Exam 2 – 10%, Final – 20%

All written exams are graded and recorded (i.e., if you chose Option 2, your Final Exam will be graded and counted regardless of score). Exams must be written on the day indicated in this syllabus with the only exceptions being (1) a student’s absence for a University Excused reason (University excused absences are determined based on Rule 07 of the Student Rules found at http://student-rules.tamu.edu/rule07) and (2) prior approval by the instructor. In the case of (2), you are encouraged to notify the instructor as soon as the conflict is realized.

There will be one project worked throughout the semester. This project will follow the topical outline of the course with grading conducted periodically throughout the 15-week semester at quarterly intervals. Projects may be worked on in groups of 1, 2 or 3 students. Quarterly project agendas will be provided by the instructor at the start of each quarter (see the schedule that follows).

Quarterly Due Dates follow the same attendance rules and policies as Exams. If projects are conducted as a team, all team members must be present on the due date. Individuals and teams are responsible for presenting their own work and only their own work. Any individual, group, organization or information sources consulted that influence any facet of the project’s progression must be disclosed to the instructor on the Quarterly Due Date. Failure to make appropriate disclosure will result in the assessment of significant penalties to the individual(s) and team(s) involved.

There will be 7 - 8 homework assignments due throughout the semester. All due dates will be assigned in class and no late homework will be accepted under any circumstances with the exception of University Excused absences. At the end of the semester, the lowest homework grade will be dropped and your homework average will be calculated based on the average of the remaining grades (i.e., if seven homework assignments are given during the semester, your homework average will be calculated using your highest six homework scores).

Misconduct in research or scholarship includes fabrication, falsification, or plagiarism in proposing, performing, reviewing, or reporting research. It does not include honest error or honest differences in interpretations or judgments of data.

Academic dishonesty includes the commission of any of the following acts: cheating, fabrication, falsification, multiple submissions, plagiarism, complicity, abuse and misuse of access and unauthorized access, and violation of departmental or college rules. This listing is not exclusive. For more information on any of these behaviors, please visit http://www.tamu.edu/aggiehonor/acadmisconduct.htm.
[Academic Dishonesty - cont] Texas A&M University students are responsible for authenticating all work submitted to an instructor. If asked, students must be able to produce proof that the item submitted is indeed the work of that student. Students must keep appropriate records at all times. The inability to authenticate one’s work, should the instructor request it, is sufficient grounds to initiate an academic dishonesty case. In cases of academic dishonesty a professor may chose to handle it within class or turn the case over to the Honor Council. If found guilty by the Honor Council, the standard punishment is an “F*” grade and “Honor Violation Probation”.

For more details on the definitions of these see [http://www.tamu.edu/aggiehonor/sanctions.html](http://www.tamu.edu/aggiehonor/sanctions.html). In this class, the minimal punishment for academic dishonesty will be a zero score for the assignment involved.

[Americans with Disabilities Act Statement] If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room 126 of the Koldus Building (845-1637).