



IE 101 Introduction to Industrial Engineering, *Three semester hours*
Fall 2012,
MW 2:00-3:15 P.M./AG/IT 253

Instructor:

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“Appointment Recommended”

COURSE INFORMATION

COURSE DESCRIPTION: Basic industrial engineering concepts to include systems optimization, variability in systems, and production systems. Student teams engage in design projects that require the integration of several concepts. Ethics and professional conduct are stressed. The computer competency evaluation will be administered in this course.

COURSE PREREQUISITE(S): None

TEXT: Lial, Margaret L., Greenwell, Raymond N., and Ritchey, Nathan P. (2009). *Finite Mathematics and Calculus with Applications*, Eighth Edition. Pearson Education, Inc. [ISBN-13: 978-0-321-42651-2, ISBN-10: 0-321-42651-7].

BOOKS ON RESERVE IN THE LIBRARY:

- Turner, Wayne C., Mize, Joe H., Case, Kenneth E., and Nazemetz, John W. (1993). *Introduction to Industrial and Systems Engineering*, Third Edition. Prentice Hall [ISBN: 0-13-481789-3].
- Emerson, Howard P. and Naehring, Douglas C. E. (1988). *Origins of Industrial Engineering: The Early Years of a Profession*. Institute of Industrial Engineers [ISBN 0-89806-097-4].

CALCULATOR: Students will need a scientific calculator, preferably one with built-in statistical functions.

COMPUTER SOFTWARE: Some course work will require computer software. We will use the software freely available to students in the computer labs on campus. If any software comes with the text, then we will use it as well.

STUDENT EXPECTATIONS:

- Students are expected to attend all class periods. Students who do not attend class regularly may find this course to be more challenging than it should be. Students missing more than five class meetings will be assigned a final grade of "F" for the course and will not be allowed to attend any more class meetings, regardless of the reason(s) for the absences. Students are considered absent from a class meeting if they miss any portion of class time. Class time begins when the instructor arrives, but no earlier than the scheduled start of class time. Class time ends when the instructor dismisses class, but no later than the scheduled end of class time.
- Students are expected to make a legitimate attempt to pass the course, as judged by the instructor. Students who do not make a legitimate attempt to pass the course will be assigned a final grade of "F" for the course and will not be allowed to attend any more class meetings.

Any violations of the following student expectations, as judged by the instructor, will result in letter grade reductions to course work grades and/or to the final course grade of the offending student.

- Students are expected to have complete knowledge of and to be fully compliant with the Code of Student Conduct in the current Student Guidebook at <http://www.tamu-commerce.edu/studentlife/guidebook.htm>
- Students are expected to be fully prepared for each class before it meets.
- Students are expected to refrain from any disruptive behaviors during class. This includes (but is not limited to) not being in their seat at the scheduled start time of class; packing up and leaving class before it is dismissed by the instructor; talking or making other noises while the instructor is presenting material or a student is asking a question; sleeping; doing work for another course; reading newspapers, magazines, or other non-course materials; and using a computer at times and for purposes other than those designated by the instructor.
- Students are expected to have cell phones (NO TEXTING), music devices, and pagers turned off during class.

ACADEMIC DISHONESTY: Efforts made by any student to achieve dishonestly will not be tolerated. Course work that students submit to the instructor is to be their own. Students may discuss course work and other course material with the instructor and/or fellow students (except during tests), but it is inappropriate to have another student do their course work or provide them with any portion of it. If the instructor determines a student has achieved dishonestly on course work, then that student will be assigned a grade of "0" for that entire course work. If the instructor determines a student has committed a second act of academic dishonesty, then that student will be assigned a final grade of "F" for the course and will not be allowed to attend any more class meetings.

DROP AND WITHDRAWAL DATES: Refer to the 2012-2013 Academic Calendar at <http://www.tamu-commerce.edu/registrar/calendar.asp> for drop and withdrawal dates.

NO CLASS ON THE FOLLOWING DAY(S):

Monday, September 3, 2012 – Labor Day Holiday

Wednesday, November 21, 2012 – no classes after 12p for Thanksgiving Holiday

TEST DATES:

Test 1	Monday, October 1, 2012
Test 2	Monday, November 5, 2012
Test 3	Monday, November 30, 2012
Final Exam	Monday, December 10, 2012, 1:15PM-3:15PM

These test dates are subject to change. If this occurs, the changes will be announced in class. If students miss a class, it is their responsibility to find out if any schedule changes have been made.

COURSE EVALUATION:

Three Examinations	60%, each is equivalent to 20% of final grade
Final Examination	35%
Class Assignment and Participation	5%

Class Assignment: The instructor may make class assignments during the daily class periods. It is expected that the student will do these assignments for the student's benefit. This component of the Class Participation course grade (account for 5% of the student's course grade) will be derived from items: (1) Student's participation in class discussions and interest shown in class and (2) class attendance

Some of the engineering problems presented on the three tests and the Final Exam may be computer work assigned prior to the test date and turned in prior to or on the test date. Students will not receive any credit for late and missed computer work, regardless of the reason(s) for the late or missed computer work. Computer work is considered late if it is not turned in immediately when the instructor asks for it. No make-up computer work will be given.

Grading Scale:

A=	90-100%
B=	80-89%
C=	70-79%
D=	60-69%
F	< 60%

Note: All handouts including syllabi, exams, and topic presentation materials are copyrighted. The instructor will keep all exam questions and presentation materials. The student will be allowed to review their examination submittals. If you desire to make a copy of your work, please make it before submitting the presentation materials.

Examinations: Each of the four examinations will be given in class. The Final Exam is comprehensive. No make-up examinations will be given. If a student misses one of the first three examinations, then that missed examination will be assigned 85.0% of that student's Final Exam grade, regardless of the reason(s) for missing the examination. An examination grade equal to "0" because of a violation of the student expectations or academic dishonesty policy stated earlier counts as a missed examination, but the grade

cannot be replaced. Upon missing the second of the first three examinations, students will be assigned a final grade of "F" for the course and will not be allowed to attend any more class meetings, regardless of the reason(s) for missing the examination. If a student misses the Final Exam, then that student will be assigned a final grade of "F" for the course, regardless of the reason(s) for missing the Final Exam. A Final Exam grade equal to "0" because of a violation of the student expectations or academic dishonesty policy stated earlier counts as a missed Final Exam. Students are required to use 8.5"×11" sheets of green engineering paper handwritten front and back. Any graphical requirements will be done on the green engineering paper. Students will need a scientific calculator for each test - unless the instructor states otherwise, it is the only computing or electronic storage device allowed during tests.

Assignments: Working and understanding all assignments is essential to succeeding in this course. Any information provided in or learned from working an assignment is fair game to be asked on an examination. If students are not entirely comfortable with a particular concept in an assignment, then they should work additional problems from the text.

Assignment solutions (if available) are provided by the publisher of the course text. The instructor had nothing to do with their creation. Therefore, the instructor is not responsible for any errors in them.

COURSE CONTENT: The following is a tentative ordered list of the course content derived from the text. Some of these sections will only be partially covered. Students should carefully read and study these sections before they are covered in class.

1. Information on Industrial Engineering and engineering ethics (none of this information is in the text but some of it is in the books on reserve in the library – everything students need to know will be provided to them by the instructor)
2. Chapter 1, Sections 1.1, 1.2
3. Chapter 2, Sections 2.1, 2.2, 2.3, 2.4, 2.5
4. Chapter 3, Sections 3.1, 3.2, 3.3
5. Chapter 4, Sections 4.1, 4.2, 4.3
6. Chapter 5, Section 5.1
7. Chapter 6, Sections 6.1, 6.2, 6.3
8. Chapter 7, Sections 7.1, 7.2, 7.3
9. Chapter 9, Sections 9.1, 9.2

ASSESSMENT OF STUDENT OUTCOMES:

After completing this course, students should be able to (the numbering does not necessarily imply any ordering):

1. Demonstrate knowledge of Industrial Engineering, related Texas A&M University-Commerce Web sites, and engineering ethics
2. Demonstrate introductory knowledge of matrices
3. Demonstrate introductory knowledge of linear programming
4. Demonstrate introductory knowledge of engineering economy
5. Demonstrate introductory knowledge of discrete mathematics
6. Demonstrate introductory knowledge of probability and statistics

STUDENTS WITH DISABILITIES: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact: Office of Student Disability Resources and Services; Texas A&M University-Commerce; Gee Library, Room 132; Phone (903) 886-5150 or (903) 886-5835; Fax (903) 468-8148; StudentDisabilityServices@tamu-commerce.edu

SYLLABUS CHANGES: The instructor has made every effort to provide the students with an accurate syllabus. However, situations may arise during the semester resulting in changes in the information provided in this syllabus. If this occurs, the changes will be announced in class. If students miss a class, it is their responsibility to find out if any changes have been made.

Copyright 2011 E. Delbert Horton as to this syllabus and all lectures. Students are prohibited from selling (or being paid for taking) notes during this course to or by any person or commercial firm without the express written permission of the professor teaching this course.