



## IE 201-001 Computing for Engineers (Fall 2015)

: The purpose of this class is to introduce students to the basic fundamentals of how to identify, formulate and analyze problems based on the knowledge of mathematics, science and engineering by using modern computing techniques. Concepts gained will pave the way to more advanced problem framing and selection of appropriate programming computing approaches. Prerequisite: MATH 2413.

**Instructor:** Ilseok “Eddie” Oh, Ph.D.  
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 Associate Professor, Construction Engineering  
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**Office Hour:** Monday & Wednesday (11am – Noon)                      Tuesday & Thursday (10:30am – Noon)

**Lecture/Lab:** Monday & Wednesday                      01:30 – 02:45 pm, AGIT 118A

**Required Text:** 1. Engineering with Excel, Ronald W. Larsen, 4<sup>th</sup> Ed, Pearson (ISBN 0132788659)  
 2. Step by Step Microsoft Access 2010, Joyce Cox & Joan Lambert, Microsoft Press (ISBN 0735626928)

### **Learning Outcomes:**

1. Learn to apply knowledge of mathematics, science, and engineering to analyze engineering problems.
2. Learn to identify, formulate, and solve engineering problems.
3. Learn to implement the computing techniques chosen to solve the problem.

### **Course Policies:**

- Course Requirements and Grades

Attendance & Participation	10%	Assignments & Quizzes	20%
Exam I	20%	Exam II	20%
Exam III	30%		

- Grading

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

- Class Attendance Requirements (*two lateness = one absence*)

# of Absence	0 – 3	4	5
Point Deduction	0	- 5	- 10

- All assignments should be submitted at the beginning of the class and the due date is “next” class meeting time. Only selected HWs will be graded. Unless prior arrangements are worked out with the instructor, a penalty of 50% will be assessed on late assignments submitted within next class meeting time of the due date. After the grace period, ZERO credit towards a final grade.

### **Academic Dishonesty**

: Texas A&M University-Commerce will not condone plagiarism in any form. Plagiarism represents disregard for academic standards and is strictly against University policy. Plagiarized work can result in a “0” on a given assignment(s) or an “F” for the course as well as further administrative sanctions permitted under University policy. You may discuss course work and other course materials with fellow students (except during tests), but it is inappropriate to have another student do your course work or provide you with any portion of it. Guidelines for properly quoting someone else’s writings and the proper citing of sources can be found in the APA Publication Manual. If you do not understand the term “plagiarism”, or if you have difficulty summarizing or documenting sources, contact your professor for assistance.

### **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@tamuc.edu

### **Student Conduct**

: All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook*). Students are expected to attend all class periods and to be prepared for each class. Students are expected to refrain from any disruptive behaviors during class, which includes but is not limited to working on assignments/projects from another course, reading non-course materials, or using the computer for non-class purposes. Cell phones, iPods, and other electronic devices should be turned off during class.

## Class Topics & Schedule

<b>Week #</b>	<b>Week of</b>	<b>M</b>	<b>W</b>
1	31-Aug	Course Introduction	MS Excel 1. Introduction
2	7-Sep	Labor Day – No class	MS Excel 2. Using Excel's Ribbon
3	14-Sep	MS Excel 3. Graphing with Excel	MS Excel 4. Excel Functions
4	21-Sep	MS Excel 5. Matrix Operations	MS Excel 6. Linear Regression
5	28-Sep	MS Excel 7. Statistics Functions	MS Excel 8. Financial Functions
6	5-Oct	MS Excel 9. Iterative Solutions	Exam I
7	12-Oct	MS Excel 11. Pivot Tables	MS Excel 12. Macros & User-Written Functions
8	19-Oct	MS Excel: Engineering Problems	MS Excel: Engineering Problems
9	26-Oct	MS Excel: Engineering Problems	MS Access 1. Explore an Access 2010 Database
10	2-Nov	MS Access 2. Create Database & Simple Tables	MS Access 3. Create Simple Forms
11	9-Nov	MS Access 4. Display Data	MS Access 5. Create Simple Reports
12	16-Nov	MS Access 6. Data Integrity	MS Access 7. Create Custom Forms
13	23-Nov	MS Access 8. Create Queries	TGB
14	30-Nov	MS Access 9. Create Custom Reports	Exam II
15	7-Dec	Exam III	