B.E. International Program

Faculty of Economics, Thammasat University

Course Outline

TU 152 Fundamental Mathematics

Semester 2/2012 (January 7 – April 28, 2013)

Number of credits: 3 credits

Lecture Time: (Section 046401) Tuesdays and Thursdays, 08.00 – 09.30 hrs

(Section 046402) Tuesdays and Thursdays, 11.00 – 12.30 hrs

Lecture Venue: (Section 046401) Room #, Faculty of Economics

(Section 046402) Room #, Faculty of Economics

Instructor: Assistant Professor Dr. Supranee Lisawadi

Office: -
E-mail: supranee_tu@hotmail.com
Office hours: Tuesdays and Thursdays, 09.30 – 11.00 hrs
or by appointment

Course Description:

Logical rule for proving; methods of proofs, arguments, mathematical induction, proofs of theorems of inequalities and absolute values, inequalities solving, functions, type of functions, applications of functions, curve sketching, partial fractions decomposition, solving of simple systems of linear equations.

Prerequisites: -

Recommended Text and Materials:

Haeussler Jr., E. F., Paul, R. S., and Wood, R. J. (2011) Introductory Mathematical Analysis for Business, Economics, and the Life and Social Sciences, 13th Edition, New Jersey: Prentice Hall.

Course Evaluation:

Midterm Examination	30%	**(February 26, 2013, 08.00 – 09.30 hrs)**
Final Examination	40%	**(May 14, 2013, 09.00 – 12.00 hrs)**
Term Project & Assignments	10%	
Quizzes (Best 5 out of 6)	20%	

Grading Scale:

Letter Grade	Suggested Percentage Grade
00 – 49	F
50 – 54	D
55 – 59	D+
60 – 69	C
70 – 79	C+
80 – 84	B
85 – 89	B+
90 – 100	A

Course Schedule:

Session	Date	Topic	Reading Assignments	Homework Assignments
1	8, 10 January 2013	Introduction to fundamental mathematics	Handout	TBA
		Logical Rules for Proving; methods of proofs, arguments, mathematical induction	Handout	
2	15, 17 January 2013	Logical Rules for Proving; methods of proofs, arguments, mathematical induction	Handout	
3	22, 24 January 2013	Applications and More Algebra	Chapter 1	
4	29, 31 January 2013	Functions	Chapter 2	
5	5, 7 February 2013			
6	12, 14 February 2013	Graph		
7	19, 21 February 2013	Lines and Parabola	Chapter 3	
		System		
Midterm Exam Week				
8	5, 7 March 2013	Exponential Functions	Chapter 4	
9	12, 14 March 2013	Limits and Continuity	Chapter 10	
10	19, 21 March 2013	Differentiation	Chapter 11	
11	26, 28 March 2013	Curve Sketching	Chapter 13	
12	2, 4 April 2013			
13	9, 11 April 2013			
14	16, 18 April 2013	Partial Fraction Decomposition	Handout	
15	23, 25 April 2013			

Note: * Holiday (Make-up classes will be announced later)

Class Rules

- The class will start no later than 15 minutes. Those who come after this period will consider late.
- No talking during the class. If you have any questions, please raise your hand. Consulting with each other is not allowed during teaching time since it might interrupt the others who pay attention to the class. However, you are allowed to consult with your friends during the tutorial sessions.
- Please pay attention to the class; any other activities (such as playing game, reading cartoons, etc.) during the class time are not permitted.
- Late assignments and quizzes will not be accepted in any circumstances.
- Leave the room immediately when you finish the quiz. There will be a quiz after the session. Student who finishes the quiz early is allowed to leave the room. You are expected to leave the room immediately after you submit the quiz.
- Quizzes cannot be retaken in any circumstances.
- Do not copy assignments and quizzes from others. If there is an evidence of cheating, the whole class will receive a score of zero for that particular assignment or quiz.
- You cannot check your answers with your friends before submitting a quiz. Failing to do so will lead to point deduction, which is up to 50%.

Term project

Students in a group of 5-6 need to submit and present the term projects, which consists of

1. Math in everyday life (2.5%)
   Students need to find interesting article (from book, internet, etc.) that shows how Mathematics can make life better. Each group needs to write a summary of what you read and submit your report on 23 April 2013.
2. Math for Economics (2.5%)
   Same group of students write a report explaining how contents in this class can be applied in Economics. This can include examples of uses, etc. The work must be submitted on 23 April 2013.
3. Class participation (5%)