SYLLABUS

Date/ Revision	29 June2016
Faculty	Business & Social Science
Approval	Dr. Samuel Prasetya

SUBJECT : BUSINESS MATHEMATICS 2

1. Identification of Subject:

Name of Subject	: Business Mathematics 2
Code of Subject	: MGNT-1100
SKS / ECTS	: 2/3
Semester	: 1
Study Program	: B-IBA/B-MGT/B-HTM/B-INR
Lecturer	:

2. Competency

After having the course, students are expected to:

a) Understand the concept of a matrix and use them to solve a linear system.
b) Understand geometrically the solution of a linear inequality in two variables and extend it to a system of linear inequalities.
c) Able to use the simplex method to solve problems that cannot be solved geometrically.
d) Understand the basic counting principle and to extend it to permutations and combination.
e) Understand the properties of probability and its applications in business statistics.

3. Description of Subject:

This course is designed to enable students to learn and apply mathematics skills to a business and management setting in the company. It covers topics using mathematics in the workplace as well as in one's personal life.

4. Learning Approach

Approach	: Combination of Expository - inquiry and colaborative
Method	: Discussion, question answer, sample problem, group work
Student Task	: Home work, quizzes
Media	: LCD projector, film.

5. Evaluation

a)	Absence maximum	: 25%
b)	Participation in discussion	: 5 points
c)	Homework, Classwork	: 5 points
d)	Presentation, Simulation	: 10 points
e)	Daily Quiz	: 20 points

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f) Final Examination : 60 points

Total : 100 points

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6. Contents/ Topics of Lecturing:

Week	Topics	Content	Remark
1	**Chapter 6 Matrix Algebra**	6.1 Matrices 6.2 Matrix Addition and Scalar Multiplication 6.3 Matrix Multiplication	
2	**Chapter 6 Matrix Algebra**	6.3 Solving Systems by Reducing Matrices Quiz	Quiz
3	**Chapter 7 Linear Programming**	7.1 Linear Inequalities in Two Variables 7.2 Linear Programming	
4	**Chapter 7 Linear Programming**	7.4 The Simplex Methods	
5	**Review of Chapter 7**	Group Discussion Quiz	Quiz
6	**Chapter 8 Introduction to Probability and Statistics**	8.1 Basic Counting Principle and Permutations 8.2 Combinations and Other Counting Principles	
7	**Evaluation**	Evaluation of chapter 6-8.2	Mid Term Test
8	**Chapter 8 Introduction to Probability and Statistics**	8.3 Sample Spaces and Events 8.4 Probability	
9	**Chapter 8 Introduction to Probability and Statistics**	8.5 Conditional Probability and Stochastic Process 8.6 Independent Events	
10	**Review of Chapter 8**	Group Discussion Quiz	Quiz
11	**Chapter 9 Additional Topics in Probability**	9.1 Discrete Random Variables and Expected Value 9.2 The Binomial Distribution	
12	**Chapter 16 Continuous Random Variables**	16.1 Continuous Random Variables 16.2 The Normal Distribution	
13	**Chapter 16 Continuous Random**	Group Discussion Quiz	Quiz

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	Variables		
14	**Review of material**	Chapter 6-9, 16	
15	Final Examination	Chapter 6-9, 16	Final Examination

17 Book Reference:

a. Text Book: Ernest Haeussler, Richard Paul, Richard Wood (2013). *Introductory Mathematical Analysis for Business, Economics, and the Life and Social Sciences: Pearson New International Edition 13th Edition.* Paperback, 864 pages ISBN: 9781292021140

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