Department of Mathematics
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Course	**Course Name**	**: Operation Research II**
	Course Code	**: KM184405**
	Credit	**: 3**
	Semester	**: 4**

Description of Course	
This course is a development of Mathematics modeling that is linear and the introduction of non-linear model. The scope of this course covers the use of Mathematics in management issues, especially decision-making based on modeling real problems.	
Learning Outcome	
PLO 2	[C3] Students are able to solve simple and practical problems by applying basic mathematical statements, methods and computations
PLO 3	[C4] Students are able to analyze simple and practical problems in at least one field of analysis, algebra, modeling, system optimizations and computing sciences
PLO 4	[C5] Students are able to work on a simple and clearly defined scientific task and explain the results, both written and verbally either on the area of pure mathematics or applied mathematics or computing sciences
Course Learning Outcome	
1. Students can understand everything related to real problems that are probabilistic. 2. Students understand the problem of Dynamic Program, Game Theory, and can arrange the model of Non-Linear Mathematics and at the same time look for the solution. 3. Students understand and understand Theory of Supply and Queue Theory.	

4. Students obtain supplies in completing the Final Project.
Main Subject
Nonlinear, multiple objective, probabilistic dynamic programming, goal programming, game theory, inventory theory and queuing theory
Prerequisites
Operation Reasearch I Statistical Methods
Reference
1. F.S. Hillier & G.J. Lieberman [2005], "Introduction to Operations Research ", Eighth Editions, McGraw-Hill Publishing Company, Singapore.
Supporting Reference
1. Taha, Hamdy A [2007], "Introduction to Operations Research", 5th Editions, Prentice Hall inc., Englewood Cliffs, New Jersey. 2. Winston [1994], "Operation Research Applications and Algorithms", Duxbury Press Belmont, California. 3. H.M. Wagner [1972], "Principles of Operations Research", Prentice - Hall, Inc., London.