Module code	SM-4336			
Module Title	Operations Research II			
Degree/Diploma	Bachelor of Science (Mathematics)			
Type of Module	Major Option			
Modular Credits	4	**Total student Workload**	10	hours/week
		Contact hours	4	hours/week
Prerequisite	SM-2203 Linear Algebra and its Applications and SM-2205 Intermediate Statistics			
Anti-requisite	None			

Aims

The module is designed for students to learn different optimization techniques that are applied to solve problems on manufacturing service, multi-factor decision making and other systems.

Learning Outcomes

On successful completion of this module, a student will be expected to be able to:

Lower order :	40%	- understand the characteristics of different types of decision-making environments
Middle order :	40%	- use and apply appropriate decision making approaches
Higher order:	20%	- interpret the results of the solution

Module Contents

- Decision tree and utility function.
- Network Models.
- Inventory Control model.
- Forecasting Models.
- Markov Analysis.
- Queuing Theory.
- Simulation.

Assessment	Formative assessment	Tutorial and feedback.
	Summative assessment	Examination: 60%
		Coursework: 40% - 2 class tests (40%)