



## Faculty of Management and Finance

## Bachelor of Business Administration Honours in Business Management Degree Programme

## Course Unit Information Sheet

Course Code		BBA 21043			
Course Name		Operations Research			
Semester		2000 Level Semester I			
Credit Value	3	Core/Optional	Core	GPA/NGPA	GPA
Hourly Breakdown		Lectures	Practical	Independent Learning	
		45 hours	-	105 hours	
Course Description					
Operations research is a quantitative approach to managerial decision making. It deals with allocating scarce resources to operational activities in an efficient and effective manner. This course provides an understanding of concepts, tools, techniques, and models of operations research and its applications in managerial decision-making.					
Intended Learning Outcomes				PLO Alignment	
Upon completion of this course unit, the students will be able to,					
1. Explain concepts, models, and techniques in operations research.				1	
2. Identify possible alternatives to solve operational issues in businesses.				3, 5, 18, 19	
3. Develop operations research models for different business alternatives.				15, 18, 19	
4. Determine different operations research techniques to solve business problems.				19, 21, 23	
5. Apply selected operations research techniques to solve business problems.				18, 19, 23, 24	
6. Evaluate and select the most suitable business alternative/s to achieve the organizational objectives.				4, 15, 20	
Course Content				Hours	ILOs
1. Introduction to Operations Research				3	1
2. Linear programming				12	1,2,3,4,5,6
3. Integer programming				3	1,2,3,4,5,6
4. Network optimization models				6	1,2,3,4,5,6
5. Transportation and assignment models				6	1,2,3,4,5,6
6. Dynamic programming				6	1,2,3,4,5,6
7. Decision theory				3	1,2,3,4,5,6
8. Waiting lines and queuing theory				3	1,2,3,4,5,6
9. Computer applications in operations research				3	5,6
Teaching Methods					
Lectures, group discussions, workshops, and seminars					

Assessment Methods		
In-course Assessments 30 %	Final Examination 70 %	Total 100%
Recommended Readings		
1. Hillier, F. S., & Lieberman, G. J. <i>Introduction to Operations Research</i> , McGraw-Hill Education. / The latest edition 2. Render, B., Ralph, M.S.J.R., & Hanna, M.E. <i>Quantitative Analysis for Management</i> , Prentice Hall. / The latest edition		