



## BBA 21043: Operations Research

Level: 2000

Number of Credits : 03

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### 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

At the end of the course, the student will be able to;

- Explain concepts, models and techniques of operations research.
- Formulate operations research models.
- Determine and apply operations research techniques to solve business problems.

### Teaching/Learning Methods

Lectures, Group discussions, Workshops, and Seminars

### Methods of Assessment

In-course Assessments	: 30%
End Semester Examination	: 70%

### Course Contents

- 1 Introduction to operations research
- 2 Linear programming
- 3 Integer programming
- 4 Network analysis
- 5 Transportation and assignment models
- 6 Dynamic programming
- 7 Decision theory
- 8 Waiting lines and queuing theory

### Recommended Readings

- 1 Hillier, F. S., & Lieberman, G. J. (2015). Introduction to Operations Research, (10th Ed), McGraw-Hill Education.
- 2 Render, B., Ralph, M.S.J.R., & Hanna, M.E. (2015). Quantitative Analysis for Management, (12th Ed). Prentice Hall.