



Curriculum - 2023

BBA Hons (Entrepreneurship) Degree Program

Faculty of Management and Finance

University of Ruhuna

BBA 21043: Operations Research

Level: 2000

Number of Credits : 03

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 in operations research.
- Identify possible alternatives to solve operational issues in businesses.
- Develop operations research models for different business alternatives.
- Determine different operations research techniques to solve business problems.
- Apply selected operations research techniques to solve business problems.
- Evaluate and select the most suitable business alternative/s to achieve the organizational objectives.

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 optimization models
5. Transportation and assignment models
6. Dynamic programming
7. Decision theory
8. Waiting lines and queuing theory
9. Computer applications in operations research

Recommended Readings

1. Hillier, F. S., & Lieberman, G. J. *Introduction to Operations Research*, McGraw-Hill Education/The latest edition.
2. Render, B., Ralph, M.S.J.R., & Hanna, M.E. *Quantitative Analysis for Management*, Prentice Hall/The latest edition.