

Course Title and Code	MATH329 – Operations Research
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I. Course Identification and General Information:

Course Title	Operations Research	Course Code	MATH329	Pre-requisite	MATH212
Department	Computer Science	Course Level	7	Credit Hours	3(2+1)

II. Course Description/Topics: The following course topics will be covered.

- OR Approach
- Methodology And Applications
- Problems of multiple criteria optimization
- Mathematical programming
- Production; linear and quadratic cost functions
- Waiting line problems
- Project management through PERT-CPM

III. Course Outcomes: Summary of the main learning outcomes for students enrolled in the course.

- Understanding linear programming as one of the Operations Research techniques.
- The ability to formulate linear programming problems.
- Understanding of some practical applications that can be solved by linear programming
- Understanding of the mathematical properties of linear programming models, by graphical and algebraic concepts.
- Understanding how to solve linear programming problems by the different methods.
- Understanding the transportation problem as an example of LLP.
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IV. Required Text:

- Operations Research: An Introduction, HamdiTaha, (7th Edition), 2002 , ISBN: 0130323748

V. References:

Discrete Mathematics

- Hillier & Lieberman "Introduction to Operations Research", Tata,McGraw-Hill.