

# Course Book

## Ministry of Higher Education and Scientific Research



College: Erbil Technical of Management

Course Title: Quantitative Research

Academic Year: semester 4

Department: Business Administration

Stage: 2

Course system: Annual

Semester

Course type: Specialty

Supportive

General

Number of weekly theoretical hours:

Number of weekly practical hours: 3 hours

Total number of weekly hours: 4

Credit hours: 4 hours

Instructor information:	
Full name	Nawzad Majeed Hamawandy
Certificate	Phd
Academic title	assistant lecturer
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Learning resources:	
<ul style="list-style-type: none"><li>• Theory:</li><li>• Laboratory practice:</li><li>• Clinical practice:</li></ul>	

<ul style="list-style-type: none"> <li>• <b>General:</b></li> </ul>
<p><b>Teaching and learning strategies:</b></p> <ul style="list-style-type: none"> <li>• <b>Theory:</b></li> <li>• <b>Laboratory practice:</b></li> <li>• <b>Clinical practice:</b></li> </ul>

### 1. Course Calendar/Practical Part:

Week/Unit	Outline	No. of Hours
1.	Linear Programming Problems	12 hours
2.	Graphical method	12 hours
3.	Simplex method	12 hours
4.	Two-stage style	10 hours
5.	The Corresponding Model Method	12 hours
6.	Big M Technique	12 hours
7.	Transportation Problems 1- North- West corner Method 3- Least Cost Method 2- Vogel method 4- Assignment 5- A winding path	12 hours
<b>Total</b>		<b>90 hours</b>

#### Examples of exams:

#### Theoretical:

Type of question	Example
Practical	Example / Find the optimal solution of the following problem $\text{Max } Z = 9x_1 + 7x_2$ subject to : $10x_1 + 5x_2 \leq 50$ $6x_1 + 6x_2 \leq 36$ $2x_1 + 10x_2 \leq 20$ $x_1, x_2 \geq 0$