University of Palestine
College of Information Technology
MIS
Course Syllabus
TMIS 4319 Operations Research

Instructor Information:

- Name of Instructor: Dr. Ahmed Hamdi Abo absa
- Email: a.absa@up.edu.ps
- Office Hours: Sat 10:00-11:00 AM

Course Information:

- Course: TMIS 4319 Operations Research
- Prerequisite: Collage Algebra, Program I
- Semester: 1st ,2020-2021
- Class Web site (Class Video Conference Site):www.up.edu.ps
- Class Live – Online meetings: Sunday and Tuesday at 10:00 am

Course Description:

TMIS 4319 Operations Research

Operations Research is a very important area of study, which tracks its roots to business applications. It combines the three broad disciplines of Mathematics, Computer Science, and Business Applications. This course will formally develop the ideas of developing, analyzing, and validating mathematical models for decision problems, and their systematic solution. The course will involve programming and mathematical analysis.

Course Objectives:

Upon completion of this course, the students will be able to:

- Solve business problems and apply it's applications by using computer programming and mathematical analysis
- Develop the ideas of developing, analyzing, and validating mathematical models for decision problems, and their systematic solution
- Understand the main concepts of OR

Course Materials:

Materials	*Availability Due Date*	*Description*
Text Book	*Yes- now*	*As below*
*Digital Text(*Lecture notes)	*Yes*	
Video	*After every lecture*	*NA*
Audio	*NA*	*NA*
Software-CD's	*Yes now*	*C,C++,Java*
Links to www.	*Yes now*	
Assignments	*Yes now*	*13 assignments*
Slides	*Yes now*	*Upinar*
Internet video broadcast	*Starting after each lecture ended*	

Course Textbook(s):

Fredrik S. Hillier, "Introduction to Operations Research",Seventh Edition,McGraw-Hill, 2001
Admitham B. Rao "Operations Research", Jaico Publishing House, 2019

Other Recommended Resources:

Hamdy A. Taha, “Operations Research an Introduction”, Tenth Edition, Pearson Education Limited, 2017

Importance of Live online participation:

- Although a live participation is highly encouraged and recommended, Online participation with UPINAR is required as a vital tool to connect you and your classmates to each other and to your instructor so that you can submit assignments, conduct quizzes, post and answer questions.
- Email is the best way to contact me outside class time and office hours.

Course work :

- Students grades are calculated according to their performance in the following course work:

Theoretical				Practical	
Assignments	Quizzes	Midterm Exam	Final Exam	Final Exam	Project
(10%)	(10%)	(20%)	(60%)	10%	(10%)

- No assignments will be accepted beyond the due date.
- All assignments must be submitted online.

Grading:

Final grade can be determined according to the university Academic System.

Academic Integrity:

- Plagiarism, cheating, and other forms of academic dishonesty are prohibited and may result in a grade F for the course.
- An incomplete grade is given only for an exceptional reason and such reason must be documented.

Course and Assignments Schedule:

	Topic	Readings	Assignments
1st Week	Introduction	Ch1	1st ass posted
2nd Week	Linear and non Linear Programming In general	Part I,II,III Ch2	
3rd Week	Linear Programming: Graphical Solution	Ch3	1st ass Due, 2nd ass posted
4th Week	Linear Programming: Algebraic Solution part 1	Ch3	
5th Week	Linear Programming: Algebraic Solution part 2	Ch3	2nd ass Due, 3rd s posted
6th Week	Linear Programming: Algebraic Solution part 3	Ch3	
7th Week	Linear Programming: Duality and Sensitivity analysis	Ch4	3rd ass Due, 4th ass posted
8th Week	**Midterm Exam**		
9th Week	Linear Programming: Transportation Model part 1	Ch5	4th ass Due, 5th ass posted
10th Week	Linear Programming: Transportation Model part 2	Ch5	
11th Week	Linear Programming: Transportation Model part 3	Ch5	5th ass Due, 6th ass posted
12th Week	Linear Programming: Networks part 1	Ch6	
13th Week	Linear Programming: Networks part 2	Ch6	6th ass Due, 7th ass posted
14th Week	Integer Programming	Ch8	
15th Week	**Final Exam**		
16th Week	**Final Exam**		