FUTURE UNIVERSITY IN EGYPT جامعة المستقبل

Faculty of Engineering & Technology

Applied Statistics

Information :

Course Code :	MTH 214	**Level :**	Undergraduate	**Course Hours :**	2.00- Hours

Department : Department of Structural Engineering & Construction Management

Instructor Information :

Title	Name	Office hours
Associate Professor	Nashwa Mohamed El Sayed Mohamed	4
Associate Professor	Nashwa Mohamed El Sayed Mohamed	4
Assistant Lecturer	TAREK ALI ABDALLAH TEAMA	2
Assistant Lecturer	TAREK ALI ABDALLAH TEAMA	2

Area Of Study :

Bearing in mind modern computing systems and concentrating on the different civil engineering applications, the course will address: Reviewing methods of data presentation and analysis and the important statistical measures, Probability distributions and their applications, Sampling methods, Sample and population measures (point estimate), Tests of hypothesis and confidence limits, Correlation and regression analysis.

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Course outcomes :

a.Knowledge and Understanding: :	
1 -	Have a working knowledge of the basic concepts of Probability
2 -	Statistical independence and Baye's theorem,
3 -	Discrete & continuous random variables,
4 -	Distribution functions (Binomial , Poisson and Normal distribution),
5 -	Reviewing methods of data presentation and analysis and the important statistical measures,
6 -	Sample and population measures (point and interval estimate).
b.Intellectual Skills: :	
1 -	Deal with application of statistical problems.
2 -	Think logically and creatively.
c.Professional and Practical Skills: :	
1 -	To gain skills in identifying and using the different Statistical rules related to this course.
2 -	To gain skills in constructing the Statistical laws and be able to solve the Statistical problems.

3 -	To gain skills to Ability to identify the problems
d.General and Transferable Skills: :	
1 -	Work effectively in team.
2 -	Develop skills related to creations thinking, problem solving , oral and written presentation, and team work.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Definitions and concepts,	4	2	2
Conditional probability,	4	2	2
Statistical independence	4	2	2
Baye's theorem,	4	2	2
Discrete random variables	4	2	2
First Midterm Exam			
continuous random variables	4	2	2
Distribution functions,	4	2	2
Binomial and Poisson distribution.	4	2	2
Normal distribution,	4	2	2
Second Midterm Exam,			
Reviewing methods of data presentation and analysis and the important statistical measures,	4	2	2
Sample and population measures (point estimate),	4	2	2
Correlation analysis,	4	2	2

Teaching And Learning Methodologies :

Lectures
Tutorial
Work on problems sheets
Discussions with the course leader if the student wishes

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Assignments and quizzes	10.00	1	
Attendance and Participation	10.00	1	
Final-term Exam	40.00	15	
First Exam	20.00	6	
Second Exam	20.00	12	

Course Notes :

Course notes &
Handouts