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
Lecturer	Basma Magdy Ahmed Mohamed	
Teaching Assistant	Mariam Mohamed Ali Ahmed Elshimey	

Area Of Study :

This course aims to develop the students´ confidence and skill in dealing with mathematical expressions, to extend their understanding the results of statistical studies and to perform descriptive and basic inferential statistical studies within your areas of interest.

Description :

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.

Course outcomes :

a.Knowledge and Understanding: :

1 -	Sample and population measures (point and interval estimate).
2 -	Reviewing methods of data presentation and analysis and the important statistical measures,
3 -	Distribution functions (Binomial , Poisson and Normal distribution),
4 -	Discrete & continuous random variables,
5 -	Statistical independence and Baye's theorem,
6 -	Have a working knowledge of the basic concepts of Probability

b.Intellectual Skills: :

1 -	Think logically and creatively.
2 -	Deal with application of statistical problems.

c.Professional and Practical Skills: :

1 -	To gain skills to Ability to identify the problems
2 -	To gain skills in constructing the Statistical laws and be able to solve the Statistical problems.
3 -	To gain skills in identifying and using the different Statistical rules related to this course.

d.General and Transferable Skills: :

1 -	Develop skills related to creations thinking, problem solving , oral and written presentation, and team work.
2 -	Work effectively in team.

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

http://www.fue.edu.eg