

## Faculty of Engineering & Technology

## **Mathematics & Statistics & Computers**

#### Information:

Course Code: MTH 213 Level : Undergraduate Course Hours : 3.00- Hours

**Department :** Department of Architectural Engineering

Instructor Information:		
Title	Name	Office hours
Lecturer	Hoda Ibrahim Ahmed El Sayed Al Attar	8
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Assistant Lecturer	Dina Yehia Zakaria Ewais	
Assistant Lecturer	Ahmed Mohamed Abdel Moniem Mohamed Soliman	2
Teaching Assistant	Ahmed Elsayed Abdellatif Ibrahim Bedeir	
Teaching Assistant	Ahmed Salah Rashad Ahmed Abdelhakk	

# **Area Of Study:**

- 1- Give basic definitions.
- 2- Use standard method to deal with various techniques of integration.
- 3- Random variables, distribution functions, estimaion, siginficance statistic, and softwares programs, Computer languages and Applications.
- 4- Some special families of univariate distributions. Joint, conditional and marginal distributions stochastic independence.

Course ou	utcomes :			
a.Knowled	dge and Understanding: :			
1 -	Define and distinguish between various statistical theories			
2 -	Apply those theories and discuss some concepts dealing with these theories			
b.Intellect	ual Skills: :			
1 -	All subjects concerned with statistical theories illustrate a			
2 -	The student should be able to deal with statistical techniques			
c.Professi	ional and Practical Skills: :			
1 -	Application of statistical theories			
2 -	Clarify some properties and concepts touching those fields			
d.General	and Transferable Skills: :			
1 -	Ability of dealing with theories and distinguishing various methods			
2 -	Ability of presenting a method to give an application to some theory			



Course Topic And Contents :			
Topic	No. of hours	Lecture	Tutorial / Practical
Descriptive Statistic: Data Description, Frequency distributions for Categorical Data, Measure of central Tendency, and Numerical Measure of Variability, Measure of position, Exploratory Data Analysis	12	6	6
Probability and counting: Random variables, Distribution functions, and Joint, conditional and marginal distributions, and Cumulative distribution function	8	4	4
Discrete Probability Distribution: Mean, variance and standard Deviation	8	4	4
Important Distributions: Bin(n,p), Poisson(), and	8	4	4
Confidence Intervals and Sample Size : Confidence Intervals for the Mean when Standard deviation is know , Good Estimator	4	2	2
Solve problems : Using Statistical Program e.g.: Minitab and Excel programs	8	4	4

## **Teaching And Learning Methodologies:**

Presentation to students in classrooms.

Direct study of notes or books.

Solving problems in practical hours.

Course Assessment :				
Methods of assessment	Relative weight %	Week No	Assess What	
Assignments and quizzes	20.00	1	i- Discussions in the lectures to assess the student ability to gain new information.	
Attendance and Participation	10.00	1	i- Discussions in the lectures to assess the student ability to gain new information.	
Final- Exam	40.00	15	i- Discussions in the lectures to assess the student ability to gain new information.	
First mid-term Exam	15.00	6	i- Discussions in the lectures to assess the student ability to gain new information.	
Second mid-term Exam	15.00	12	i- Discussions in the lectures to assess the student ability to gain new information.	

Course Notes :		
Course notes prepared by staff		
Periodicals :		

web sites

Web Sites :

web sites