

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

Area Of Study :

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

Description :

The course provides students with the basic concepts of Mathematical Statistics and application with Statistical Program e.g. MINITAB, and EXCEL" and to make them able to develop an understanding of mathematical Statistical concepts.

Course outcomes :

a.Knowledge and Understanding: :

- 1 - Define and distinguish between various statistical theories.
- 2 - Define some of IT tools.

b.Intellectual Skills: :

- 1 - Solve mathematical problems related to engineering profession.
- 2 - Analyze results of statistical problems.

c.Professional and Practical Skills: :

- 1 - Apply statistical software to solve engineering problems.

d.General and Transferable Skills: :

- 1 - Manage tasks.

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(λ) and N(μ, σ^2)	8	4	4
Confidence Intervals and Sample Size : Confidence Intervals for the Mean when Standard deviation is know , Good Estimator.	8	4	4
Solve problems : Using Statistical Program e.g.: Minitab and Excel programs	16	8	8

Teaching And Learning Methodologies :

Lecture
Tutorial
Work @ Lab

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