

Faculty of Engineering & Technology**Probability and Statistics****Information :****Course Code :** EMP312**Level :** Undergraduate**Course Hours :** 3.00- Hours**Department :** Mechatronics Engineering**Instructor Information :**

Title	Name	Office hours
Lecturer	Basma Magdy Ahmed Mohamed	2
Assistant Lecturer	Doaa Nabil Sayed Mohamed Elsayed Khodair	

Description :

Probability definitions and concepts; Conditional probability; Statistical independence and Bayes theorem; Discrete and continuous random variables; Distribution functions; Probability distributions and moments; Random variables and their probability distributions including uniform, binomial, geometric, Poisson, normal, and exponential distributions; Expected value and variance; Stochastic simulation; Sampling distributions; Maximum likelihood and least squares methods of estimation; Statistical inference including hypothesis testing and interval estimation; Applications using MATLAB;