



Jordan University of Science and Technology
Faculty of Science & Arts
Mathematics Department

MATH233 Probability & Statistics (For Computer Sciences Students)

First Semester 2022-2023

Course Catalog

3 Credit Hours. Descriptive statistics, Probability; axioms of probability, rules of probability, conditional probability, independence. Discrete and continuous random variables, expectation, probability distributions. Sampling distributions; t and Chi square and F distributions, CLT. Point estimation: for mean and variance, the difference between two means and the ratio of two variances, testing hypotheses for small, large and dependent samples, correlation, simple linear and multiple regression. Goodness of fit tests.

Text Book

Title	Introduction to Probability and Statistics
Author(s)	J. Susan Milton and Jesse C. Arnold
Edition	4th Edition
Short Name	TextBook
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref 1	Probability and Statistics, the science of uncertainty	M. J. Evans, J. S. Rosenthal	2nd Edition	
Ref 2	Applied Statistics and Probability for Engineers	D. Montgomery, C. Runger	4th Edition	
Ref 3	Mathematical Statistics with Applications	D. Wackerly, W. Mendenhall, R. Scheaffer, R.	7th Edition	

Instructor

Name	Prof. Mohammad ALSaleh
Office Location	PH2 Level 1

Office Hours	Sun : 10:30 - 11:30 Mon : 12:00 - 13:00 Tue : 12:30 - 13:30 Wed : 12:00 - 13:00 Wed : 14:00 - 15:00 Thu : 10:30 - 11:30
Email	mfalsaleh@just.edu.jo

Class Schedule & Room	
Section 1:	Lecture Time: Sun, Tue : 11:30 - 12:30 Room: SF11
Section 2:	Lecture Time: Mon, Wed : 13:00 - 14:00 Room: SF11

Tentative List of Topics Covered		
Weeks	Topic	References
Weeks 1, 2	Chapters 1: Descriptive Statistics	From TextBook
Week 3	Chapter 2: Probability	From TextBook
Week 3	Chapter 3: Probability Distribution	From TextBook
Week 4	Chapter 4: Mathematical Expectation	From TextBook
Weeks 5, 6	Chapter 5: Some Discrete Distribution	From TextBook
Week 7	Chapter 6: Some continuous Distributions	From TextBook
Week 8	Chapter 7: Sampling Distribution	From TextBook
Week 9	Chapter 8: ESTIMATION	From TextBook
Weeks 10, 11, 12, 13	Chapter 9: Confidence Interval and Hypothesis Testing	From TextBook
Weeks 14, 15	Chapter 10: Simple Linear Regression and Correlation	From TextBook
Week 16	Final Exams	

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Being able to describe data with tabular, visual, and numerical forms. [1SLO1, 1SLO3]	10%	Test 1
Being able to know and understand the basics and rules of probability [1SLO1]	20%	Test 1
Knowing and understanding univariate probability distributions (continuous and discrete) and the typical phenomena that each distribution often describes in computer sciences. [1SLO1]	25%	Test 1

Being able to calculate and interpret point estimates and perform hypotheses testing. [1SLO1, 1SLO3]	35%	Test 1
Being able to carry out correlation and simple linear regression model [1SLO1, 1SLO3]	10%	

Relationship to Program Student Outcomes (Out of 100%)					
SLO1	SLO2	SLO3	SLO4	SLO5	SLO6
72.5		27.5			

Evaluation	
Assessment Tool	Weight
Test 1	30%
Test 2	30%
Final	40%

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