

## Course Syllabus

1	Course title	Applied Statistics	
2	Course number	1601702	
3	Credit hours	3	
	Contact hours (theory, practical)	3	
4	Prerequisites/corequisites	-	
5	Program title	Master of Business administration	
6	Program code		
7	Awarding institution	University of Jordan	
8	School	School of Business	
9	Department	Business administration	
10	Course level	Postgraduate/ Master course	
11	Year of study and semester (s)	2021-2022 / First Semester	
12	Other department (s) involved in teaching the course	All Departments	
13	Main teaching language	English	
14	Delivery method	<input type="checkbox"/> Face to face learning <input checked="" type="checkbox"/> Blended <input type="checkbox"/> Fully online	
15	Online platforms(s)	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input checked="" type="checkbox"/> Zoom <input type="checkbox"/> Others.....	
16	Issuing/Revision Date	October 2021	

### 17 Course Coordinator:

Name: Prof. Mohammed Amen Al-Nuaimi

Contact hours:

Office number:

Phone number: +962796649727

Email: [m.nuaimi@ju.edu.jo](mailto:m.nuaimi@ju.edu.jo)

**18. Other instructors:**

Name:

Office number:

Phone number:

Email:

Contact hours:

Name:

Office number:

Phone number:

Email:

Contact hours:

**19. Course Description:**

As stated in the approved study plan, this course includes different topics in the field to using statistical methods and help the student to solve problems, process data and test hypotheses distributions of data, sampling size and multivariate model, factor analysis.



## 20. Course aims and outcomes:

## A- Aims:

- 1- Identify distribution
- 2- Test hypotheses
- 3- Understanding the regression and correlation
- 4- Apply the multiple regression
- 5- Time series analysis and factor analysis

## B- Students Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

After completing this course, Students should be able to identify distributions and identify area under the curve confidence intervals, z and t test, chi-squares test, understand the hypotheses testing and find the critical value.

They also Should be able to understand and apply the correlation and regression, coefficient of determination, and multiple regression using the one-way ANOVA and Scheffe test, nonparametric statistics why used multivariate analysis when you used, what time series analysis and factor analysis, exploratory and confirmatory examples to explain the methods.

SLOs SLOs of the course	SLO (1)	SLO (2)	SLO (3)	SLO (4)
<b>1) Develop</b>	A solid foundation of mathematical and statistical processes.	A theoretical and applied principles of statistics needed for Thesis purposes.	A proficiency in collection, organization, design, and drawing inferences from data using appropriate statistical methodology.	Advanced problem solving and critical thinking skills for statistical related dilemmas.
<b>2) Apply</b>	Statistics in other fields at an appropriate level.	knowledge acquired from their major to real world models.	knowledge of statistics through an in-depth senior project/research experience.	Statistical software for data analysis needed for Thesis purposes.
<b>3) Exhibit</b>	mastery of data analysis and statistical concepts	communicating critically reasoned analysis through written and oral presentations	An understanding and explanation for key statistical concepts to non-statisticians.	A broader implication of application in the statistical field.

<b>4) Acquire</b>	up-to-date skills and/or applications of computer and statistical programming.	thorough understanding of applied principles of statistics.	preparedness to provide guidance in statistical design and analysis.	Ability to communicate statistical concepts clearly and professionally in oral form
<b>5) Evaluate</b>	Results presented in both written (paper, publication, portfolio, etc.) and visual (PowerPoint, poster, portfolio, etc.) formats.	Comprehensive written exams based on a summary of required coursework.	A summary of a research project [non-thesis coursework].	A data set including both categorical and quantitative variables to support or refute a statement,
<b>6) Discuss</b>	Read, interpret, and critically analyze journal articles directed at undergraduate students	Summarization of technical reports and/or statistical analysis and interpret results.	And identify areas where ethical issues may arise in statistics.	types of studies and their limitations and strengths.

## 21. Topic Outline and Schedule:

Week	Lecture	Topic	Intended Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
1	1.1	CH.1 Overview of statistics		Blended		Synchronous	Exam, homework	
	1.2	CH.1 Overview of statistics		Blended		Synchronous	Exam, homework	
	1.3	CH.1 Overview of statistics		Blended		Synchronous	Exam, homework	
2	2.1	CH.2 The normal distribution		Blended		Synchronous	Exam, homework	
	2.2	CH.2 The normal distribution		Blended		Synchronous	Exam, homework	
	2.3	CH.2 The normal distribution		Blended		Synchronous	Exam, homework	

Week	Lecture	Topic	Intended Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
3	3.1	CH.3 Confidence interval and sample size		Blended		Synchronous	Exam, homework	
	3.2	CH.3 Confidence interval and sample size		Blended		Synchronous	Exam, homework	
	3.3	CH.3 Confidence interval and sample size		Blended		Synchronous	Exam, homework	
4	4.1	CH.4 Hypothesis testing		Blended		Synchronous	Exam, homework	
	4.2	CH.4 Hypothesis testing		Blended		Synchronous	Exam, homework	
	4.3	CH.4 Hypothesis testing		Blended		Synchronous	Exam, homework	
5	5.1	CH.4 Hypothesis testing		Blended		Synchronous	Exam, homework	
	5.2	CH.4 Hypothesis testing		Blended		Synchronous	Exam, homework	
	5.3	CH.4 Hypothesis testing		Blended		Synchronous	Exam, homework	
6	6.1	CH.5 Correlation and regression		Blended		Synchronous	Exam, homework	
	6.2	CH.5 Correlation and regression		Blended		Synchronous	Exam, homework	
	6.3	CH.5 Correlation and regression		Blended		Synchronous	Exam, homework	
7	7.1	CH.5 Correlation and regression		Blended		Synchronous	Exam, homework	
	7.2	CH.6 Chi-Square test		Blended		Synchronous	Exam, homework	
	7.3	CH.6 Chi-Square test		Blended		Synchronous	Exam, homework	
8	8.1	CH.6 Chi-Square test		Blended		Synchronous	Exam, homework	

	8.2	CH.6 Chi-Square test		Blended		Synchronous	Exam, homework	
	8.3	CH.6 Chi-Square test		Blended		Synchronous	Exam, homework	
9	9.1	CH. 7 Analysis of variance		Blended		Synchronous	Exam, homework	
	9.2	CH. 7 Analysis of variance		Blended		Synchronous	Exam, homework	
	9.3	CH. 7 Analysis of variance		Blended		Synchronous	Exam, homework	
10	10.1	CH. 7 Analysis of variance		Blended		Synchronous	Exam, homework	
	10.2	CH. 7 Analysis of variance		Blended		Synchronous	Exam, homework	
	10.3	CH. 7 Analysis of variance		Blended		Synchronous	Exam, homework	
11	11.1	CH.8 Nonparametric statistics		Blended		Synchronous	Exam, homework	
	11.2	CH.8 Nonparametric statistics		Blended		Synchronous	Exam, homework	
	11.3	CH.8 Nonparametric statistics		Blended		Synchronous	Exam, homework	
12	12.1	CH.9 Overview of Multivariate		Blended		Synchronous	Exam, homework	
	12.2	CH.9 Overview of Multivariate		Blended		Synchronous	Exam, homework	
	12.3	CH.9 Overview of Multivariate		Blended		Synchronous	Exam, homework	
13	13.1	CH. 10 Time series		Blended		Synchronous	Exam, homework	
	13.2	CH. 10 Time series		Blended		Synchronous	Exam, homework	
	13.3	CH. 10 Time series		Blended		Synchronous	Exam, homework	
14	14.1	CH.11 Factor analysis		Blended		Synchronous	Exam, homework	

	14.2	CH.11 Factor analysis		Blended		Synchronous	Exam, homework	
	14.3	CH.11 Factor analysis		Blended		Synchronous	Exam, homework	
15	15.1	CH. 12 MANOVA		Blended		Synchronous	Exam, homework	
	15.2	CH. 12 MANOVA		Blended		Synchronous	Exam, homework	
	15.3	CH. 12 MANOVA		Blended		Synchronous	Exam, homework	

## 22. Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLOs	Period (Week)	Platform
Midterm exam	30	TBC			TBC
Second exam	20	TBC			TBC
Homework	10	TBC			TBC
Final exam	40	All chapters			All chapters

## 23 Course Requirements

(e.g: students should have a computer, internet connection, webcam, account on a specific software/platform...etc):

Software - SPSS



**24. Course Policies:**

- A- Attendance policies:
- B- Absences from exams and submitting assignments on time:
- C- Health and safety procedures:
- D- Honesty policy regarding cheating, plagiarism, misbehavior:
- E- Grading policy:
- F- Available university services that support achievement in the course:

**25. References:**

A- Required book(s), assigned reading and audio-visuals:

- ALLAN-BLLUMAN
- J.HAIR

B- Recommended books, materials, and media:

**26. Additional information:**



Name of Course Coordinator: <b>Mohammad Al-Nuaimi</b> Signature: ----- Date: ----- -----
Head of Curriculum Committee/Department: ----- Signature: ----- ---
Head of Department: ----- Signature: ----- -
Head of Curriculum Committee/Faculty: ----- Signature: ----- -
Dean: ----- Signature: -----