

**The University of Jordan**  
**Accreditation & Quality Assurance Center**

**COURSE Syllabus**

1	Course title	Statistical Packages
2	Course number	1904255
3	Credit hours (theory, practical)	3 Practical
	Contact hours (theory, practical)	3 Practical
4	Prerequisites/corequisites	Discrete Mathematics 1901101
5	Program title	Information Technology
6	Program code	4
7	Awarding institution	The University of Jordan
8	Faculty	King Abdullah II School for Information Technology
9	Department	Department of Information Technology
10	Level of course	2nd year
11	Year of study and semester (s)	Any
12	Final Qualification	Bachelor (BSc)
13	Other department(s) involved in teaching the course	None
14	Language of Instruction	English
15	Teaching methodology	<input type="checkbox"/> Blended <input type="checkbox"/> Online
16	Electronic platform(s)	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....
15	Date of production/revision	25-1-2023
16	Required/ Elective	Required

**16. Course Coordinator:**

Dr. Bashar Al-Shboul Office number: 305 Office Phone: +962 6 5355000    Ext.: 22640 <a href="mailto:b.shboul@ju.edu.jo">b.shboul@ju.edu.jo</a>
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**17. Other instructors:**

None
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**18. Course Description:**

This course aims at introducing the main statistical and probabilistic concepts for scientific applications. In addition, the course introduces different application fields of those concepts in the business intelligence and decision support systems. The course graphically introduces those concepts utilizing MATLAB as a programming environment for applying statistical/probabilistic methods and techniques.
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## 19. Course aims and outcomes:

### A- Aims:

The main goal of this course is to equip students with knowledge on statistical methods and techniques, their basic concepts, and how to apply them in real life problems.

Enable students to:

1. Understand the statistical concepts and methods.
2. Understand the probabilistic concepts and methods.
3. Understand the ideas related to probabilistic and density distributions.
4. Understand the concepts of regression analysis.
5. Understand the basic ideas behind dimensionality reduction and feature selection.

B- Intended Learning Outcomes (ILOs): (Mapped directly to SO's → ILO≡OS)

Successful completion of this course should lead to the following learning outcomes:

- Understand the basic descriptive statistical concepts (1)
- Understand methods of modeling, comparing, and analyzing data sets (1)
- Understand the basic concepts of probability (1)
- Understand the characteristics of probability density functions. (1)
- Understanding the concept of regression & regression Analysis (1)
- Understand the multi-dimensionality in data & their characteristics (1)
- Be able to utilize MATLAB built-in functions to apply statistical methods learned during this course (1)

## 20. Topic Outline and Schedule:

Chapter	Topic	Week	Teaching Methods	Evaluation Methods	Reference
1,2	Introduction to Statistics	1,2	In class lectures	Lecture	Class Notes
3.1	Introduction to Probability	3,4	In class lectures	Lecture	Class Notes
3.2	Set Theory	5	In class lectures		
3.3	Basic Probability	6	In class lectures		
4.1	Random Variables	7	In class lectures	Lecture	Class Notes
4.2	Binomial Distribution	8	In class lectures		
4.3	Geometric Distribution	9	In class lectures		
5.1	Density Curves & Normal Distribution	10	In class lectures	Lecture	Class Notes
5.2	Sampling & Hypothesis Testing	11	In class lectures		
6	Introduction to MATLAB I	12,13	In class lectures	Lecture	Class Notes
7.1	Regression Analysis	14	In class lectures	Lecture	Class Notes
7.2	Linear Regression	15	In class lectures	Lecture	Class Notes

## **21. Teaching Methods and Assignments:**

Development of ILOs is promoted through the following teaching and learning methods: Lectures, assignments, exams,

### **Teaching Strategies:**

Class Contact is 3 Hours per week. The Course will be delivered using different means like in class lectures, lecture (via MS-teams), presentations, videos (via Moodle and YouTube), discussion and case studies.

### **Learning Methods:**

Half Students attend in class lectures and the other have attend lectures (via MS-teams), ask questions and participate in discussions, do the homeworks, present the assignments and demo their works. Students will access the e-learning platform for more instruction and supported learning materials.

## **22. Evaluation Methods and Course Requirements:**

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements.

### **Assessment (A) Methods**

There will be three assessment methods of evaluation the performance of the students:

Formal Exams, Final Exams, Pop-up quizzes and multiple assignments.

Every student is expected to completely adhere to the exam dates and times, absolutely no exceptions will be given.

## **23. Course Policies:**

### **A- Attendance policies:**

Student is derived from attending the final exam of the course if s/he is absent for 15% of class time (5 absence for lecture duration 1 hour 20 minutes, and 7 absence for lecture duration 50 minutes) and will be given a fail (F) grade. If the absence is for a valid reason that is deemed acceptable by the registrar, the student is considered withdrawn (WD) from the subject

### **B- Absences from exams and handing in assignments on time:**

It is the student's responsibility to ensure that he/she is aware of all assignments, announcements and contents of missed sessions

Submitting the Homework's and assignments will be through the Moodle platform, the time duration for each home work /assignment will be determined clearly. Late submissions are not allowed; any student exceed this time duration without submitted his/her homework will take the zero as mark.

Absence of any exam is not acceptable, except with an official excuse.

### **C- Health and safety procedures:**

All students should comply with the university Health and Safety procedures.

**D- Honesty policy regarding cheating, plagiarism, misbehavior:**

It is the student's responsibility to ensure that he/she is adhere with cheating, plagiarism, misbehavior, all students should comply with the university honesty policy regarding cheating, plagiarism, misbehavior.

**E- Grading policy:**

There will be one final exam comprising 50% of the total course grade, and 2 quizzes (25% of final grade). The remaining 25% is accounted for a Homework's and assignments.

**Intended (Tentative) Grading Scale:**

Range	LG	الحرف	Range	LG	الحرف	Range	LG	الحرف
91 - 100	A	أ	74 - 77	B-	-ب	56 - 60	D+	+د
86 - 89	A-	-أ	70 - 73	C+	+ج	50 - 55	D	د
82 - 85	B+	+ب	66 - 69	C	ج	45 - 49	D-	-د
78 - 81	B	ب	61 - 65	C-	-ج	0 - 44	F	هـ

**Grading and Evaluation Criteria: 100 points distributed as follows:**

Weight	Criteria	Comments
30%	Mid term	TBA
20%	Assignments	TBA
50%	Final Exam	TBA

**F- Available university services that support achievement in the course:**

<http://elearning.ju.edu.jo>

**24. Required equipment:**

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

students should have :

1. A computer.
2. Internet connection.
3. Account on Microsoft Teams + Moodle.
4. Webcam (sometimes).

**25. References:**

1. Princeton Review, Cracking the AP statistics Exam, 2015 (ISBN: 0804125406)
2. Robin Levine-Wissing, David Thiel, AP Statistics: NEW 3rd Edition (Advanced Placement (AP) Test Preparation), 2006 (ISBN: 0738601632)

**26. Additional information:**

1. Tardiness and/or absenteeism will have a negative impact on the course grade.

2. الامتناع المدير عن حضور المحاضرات أو الدروس أو عن الأعمال الأخرى التي تقضي الأنظمة بالمواظبة عليها ، وكل تحريض على هذا الامتناع سوف يؤدي الى حرمان الطالب من المادة المعنية.

3. في حالة التغيب عن الامتحانين الأول و الثاني لن يكون هناك امتحان تعويضي الا في حالة وجود عذر وحالة طارئة من المستشفى. على الطالب براز العذر لمدرس المادة في فترة لا تتجاوز الثلاثة ايام من تاريخ الامتحان, وللمدرس الحق في قبول او رفض العذر , وحسب التعليمات.

4. Concerns or complaints should be expressed in the first instance to the module lecturer; if no resolution is forthcoming then the issue should be brought to the attention of the module coordinator (for multiple sections) who will take the concerns to the module representative meeting. Thereafter problems are dealt with by the Department Chair and if still unresolved the Dean and then ultimately the Vice President. For the final complaints, there will be a committee to review grading the final exam.
5. For more details on University regulations please visit <http://www.ju.edu.jo/rules/index.htm>

**Date: 25.1.2023**

Name of Course Coordinator: **Dr. Bashar Al-Shboul**

Signature: **BA**

Head of Department: -----

Signature: -----

Head of curriculum committee/Faculty: -----

Signature: -----

Dean: -----

Signature: -----

Assistant Dean for Quality Assurance  
Course File