Form: Course Syllabus		
	Form Number	EXC-01-02-02A
	Issue Number and Date	2/3/24/2022/2963 05/12/2022
	Number and Date of Revision or Modification	2023/10/15
	Deans Council Approval Decision Number	265/2024/24/3/2
	The Date of the Deans Council Approval Decision	2024/1/23
	Number of Pages	06

1.	**Course Title**	Statistical Methods for Health Care Research
2.	**Course Number**	0703725
3.	**Credit Hours (Theory, Practical)**	3
	Contact Hours (Theory, Practical)	48
4.	**Prerequisites/ Corequisites**	-
5.	**Program Title**	Master in Nursing
6.	**Program Code**	
7.	**School/ Center**	Nursing
8.	**Department**	
9.	**Course Level**	First year
10.	**Year of Study and Semester (s)**	First year/first semester
11.	**Program Degree**	MSc
12.	**Other Department(s) Involved in Teaching the Course**	-
13.	**Learning Language**	English
14.	**Learning Types**	xFace to face learning
15.	**Online Platforms(s)**	-
16	**Issuing Date**	25 Feb 2025
17.	**Revision Date**	25 Feb 2025

18. Course Coordinator:

Name: Prof. Muayyad Ahmad Contact hours: TBA by email

Office number: 111 Phone number: 23137

Email: mma4@ju.edu.jo; mma4jo@yahoo.com

19. Other Instructors:

None

20. Course Description:

The emphasis of this course is on the nature and characteristics of the most used statistical techniques (descriptive statistics, correlation and linear regression, factor analysis, and elementary hypotheses testing), and their applicability to specific health care problems within the context of nursing. Students will develop skills and knowledge in the use of computing software and to reinforce learning through assignments, including the analysis of data and interpret computer output.

21. Program Intended Learning Outcomes: (To be used in designing the matrix linking the intended learning outcomes of the course with the intended learning outcomes of the program)

1. Utilize up-to-date knowledge and holistic perspective in advanced critical care nursing management of health and disease states.
2. Maximize use of information technology applications to enhance advanced roles of critical care nursing practice, education, and research.
3. Apply research and evidence-based nursing practice to improve nursing practice, quality of client care, safety and outcomes.

PLO's	*National Qualifications Framework Descriptors*		
	Competency (C)	Skills (B)	Knowledge (A)
1.	☐	☐	☒
2.	☒	☒	☒
3.	☒	☒	☒
4.	☐	☐	☒
5.	☐	☐	☒

* Choose only one descriptor for each learning outcome of the program, whether knowledge, skill, or competency.

22. Course Intended Learning Outcomes: (Upon completion of the course, the student will be able to achieve the following intended learning outcomes)

1. Knowledge and Understanding
Identify the appropriate analytical technique based on research problem.
Identify sources of error in data analysis
Identify methods and process of data cleaning.
Discuss major goals for conducting inferential statistics.
Identify when to use the nonparametric statistical analysis
Recognize the meeting of relevant assumptions for each selected statistical test.
Critique the statistical technique in published research**.**
2. Intellectual Analytical and Cognitive Skills
○ Interpret the results of t-test, ANOVA, & linear and logistic regression ○ Interpret the results of principal components analysis ○ Interpret empirical evidence from research articles.
3. Subject/ Specific/ Practical Skills
Recognize the importance of statistics nursing research.
Demonstrate knowledge of the advanced methods in health statistics.
Conduct practice exercise on the major topics in the course.
4. Creativity /Transferable Key Skills/Evaluation
Critique research reports according to the advanced statistics methods
Become independent in handling data for analyses.

Course ILOs #	The learning levels to be achieved						Competencies
	Remember	Understand	Apply	Analyse	Evaluate	Create	
1.	x	x					
2.			x	x	x		
3.	x	x					

4.			**x**	**x**	**x**	**x**	

23. The matrix linking the intended learning outcomes of the course -CLO's with the intended learning outcomes of the program -PLOs:

PLO's * / CLO's	1	2	3	4	5	Descriptors**		
						A	B	C
1	x							x
2		x				x	x	
3			x			x	x	
4				x		x		

***Linking each course learning outcome (CLO) to only one program outcome (PLO) as specified in the course matrix.**

****Descriptors are determined according to the program learning outcome (PLO) that was chosen and according to what was specified in the program learning outcomes matrix in clause (21).**

24. Topic Outline and Schedule:

Week	Topics	Intended Learning Outcome	Learning Methods	Platform	Evaluation Methods
1	*Chapter 1: Introduction*	1	Face to Face	Classroom	Exams Assignments presentation
2	*Chapter 2:* Organizing, Displaying, and Describing Data; Data cleaning using SPSS	1 2	Face to Face	Classroom	Exams
3	*Chapter 3:* Key Principles Underlying Statistical Inference: Probability and	1 2 3	Face to Face	Classroom	Assignments

	the Normal Distribution				
4	*Chapter 4:* Hypothesis Testing with Inferential Statistics	1 2 3 4	**Face to Face**	**Classroom**	**presentation**
5	*Chapter 5:* The Independent *t* Test and the Mann-Whitney *U*-Test: Measuring the Differences between the Means of Two Unrelated Groups	1 2 3 4	**Face to Face**	**Classroom**	**Exams**
6	*Chapter 6:* The Paired *t* Test and the Wilcoxon Matched-Pairs Signed Rank Test: Comparing the Means/Medians of Two Related Groups	1 2 3 4	**Face to Face**	**Classroom**	**Assignments**
7	**Midterm exam**			**Classroom**	
8	*Chapter 7:* The One-Way ANOVA and the Kruskal-Wallis *H*-Test: Comparing the Means of Three or More Unrelated Groups	1 2 3 4	**Face to Face**	**Classroom**	**Exams**

9	*Chapter 10:* Comparing Means and Controlling for Covariates: ANCOVA	1 2 3 4	Face to Face	Classroom	Assignments
10	*Chapter 11:* Correlation Coefficients: Measuring the Association of Two Variables	1 2 3 4	Face to Face	Classroom	presentation
11	*Chapter 14:* Linear Regression	1 2 3 4	Face to Face	Classroom	Exams
12	*Chapter 13:* Statistical Model Building and Logistic Regression	1 2 3 4	Face to Face	Classroom	Assignments
13	*Chapter 12:* Examining Cross-Tabulations: The Chi-Square and Associated Statistics	1 2 3 4	Face to Face	Classroom	presentation
14	*Chapter 15:* Exploratory Factor Analysis		Face to Face	Classroom	Exams
15	**Final exam**		Face to Face	Classroom	Assignments

25. Evaluation Methods:

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

Evaluation Activity	*Mark wt.	1	2	3	4
Assignment 1	10	x	x	x	x
Assignment 2	10	x	x	x	x
Assignment 3	10	x	x	x	x
Mid Exam	30	x	x	x	x
Final Exam	40	x	x	x	x
Total 100%					

Final exam specifications table

No. of questions/ cognitive level						No. of questions per CLO	Total exam mark	Total no. of questions	CLO Weight	CLO no.
Create **%10**	Evaluate **%10**	analyse **%10**	Apply %20	Understand **%20**	Remember %30					
1	1	1	2	2	3	10	10	10	25%	1
1	1	1	2	2	3	10	10	10	25%	2
1	1	1	2	2	3	10	10	10	25%	3
1	1	1	2	2	3	10	10	10	25%	4

26. Course Requirements:

- Attending all classes
- Learning essentials of SPSS
- Doing the course assignment
- Perform well in the course exams.

27. Course Policies:

A- Attendance policies:

- Regular class attendance and participation is expected of all students.
- Students are responsible for all missed course information.

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

Each student is expected to submit assignment on the due date. One grade will be deducted for each day after due date.

C- Health and safety procedures:

D- Honesty policy regarding cheating, plagiarism, misbehavior:

Copying another student's paper or any portion of it is plagiarism. Additionally, copying a portion of published material (e.g., books or journals) without adequately documenting the source is plagiarism. If five or more words in sequence are taken from a source, those words must be placed in quotes and the source referenced with author's name, date of publication, and page number of publication. If the author's ideas are rephrased, by transposing words or expressing the same idea using different words, the idea must be attributed to the author by proper referencing, giving the author's name and date of publication. If a single author's ideas are discussed in more than one paragraph, the author must be referenced at the end of each paragraph. Authors whose words or ideas have been used in the preparation of a paper must be listed in the references cited at the end of the paper. Students are encouraged to review the plagiarism module from the UT Arlington Central Library via

E- Grading policy:

A grade of (C+) is the minimum passing grade for the course.

Grade	Grade Points
A	4
A-	3.75
B+	3.5
B	3
B-	2.75
C+	2.5
C	2

F- Available university services that support achievement in the course: E-library, teaching courses from the Library.

28. References:

Textbook and reading materials to be discussed in the class

Kellar, Sacey & Kelvin, Elizabeth. (2021). Munro's *Statistical methods for health care research*. 6th. ed. Philadelphia: Lippincott.

B- Recommended books, materials, and media:

Recommended Readings & Resources

Munro B., ed. (2015). *Statistical methods for health care research*. 5th. ed. Philadelphia: Lippincott.

BM Corporation (2017). *IBM SPSS Statistics for Windows*, Version 21.0. or above, Armonk, NY: IBM Corp.

Access the periodicals online within the Campus net: **http://e-library**

29. Additional information:

Name of the Instructor or the Course Coordinator **Prof. Muayyad Ahmad** ……	Signature: *Prof. Muayyad Ahmad*	Date: 25 Feb 2025
Name of the Head of Quality Assurance Committee/ Department ……	Signature: ……	Date: ……
Name of the Head of Department ……	Signature: ……	Date: ……
Name of the Head of Quality Assurance Committee/ School or Center ……	Signature: ……	Date: ……
Name of the Dean or the Director	Signature:	Date:

…… …… ……