Biostatistics Course Description (2025-2026)

1. Course Name:	
Biostatistics	
2. Course Code:	
WNR–32–02	
3. Semester / Year:	
First semester / 3d year	
4. Description Preparation Date:	
1–2– 2026	
5. Available Attendance Forms:	
Spreadsheet	
6. Number of Credit Hours (Total) / Number of Units (Total):	
2 Hours	

7. Course administrator's name (mention all, if more than one name)

Name: Lect. Hayder Ghaleb Jebur
Email: hayder.gh@uowa.edu.iq

8. Course Objectives

Course Objectives	
	• Demonstrate the statistical methods for collecting date, summarization, tabulation, presentation and analysis.
	• Apply manual calculation for descriptive and inferential tests.
	• Apply certain statistical program as excel or SPSS which are used for data analysis in computer.
	• Deal with different data sets such as hospital records.

9. Teaching and Learning Strategies

Strategy	Lecture Discussion Demonstration Solving Exercises

10. Course Structure					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
First	2	The students define biostatistics The student list some areas where biostatistics is important The student discuss importance of biostatistics in research	Introduction	Lecture Discussion	Quiz
Second	2	The student define biostatistics elements The student list source of data required in nursing research	Definitions/ Source Data	Lecture Discussion	Quiz
Third	2	Define quantitative variable Distinguish between countable and measurable variables Distinguish between dependent and independent variables	Variable I(Quantitative)	Lecture Discussion	Quiz
Fourth	2	Define qualitative variable Distinguish between countable and measurable variables Distinguish between dependent and independent variables	Variable II (Qualitative)	Lecture Discussion	Quiz
Fifth	2	Example of nominal scale Example of ordinal scale Example of interval scale Example of ratio scale	Measurement scales	Lecture Discussion	Quiz
Sixth	2	Construct table	Descriptive Statistic I(tables)	Lecture Discussion Exercises solut	Exercises solution
Seventh	2	Construct graphs	Descriptive Statistic II(graphs)	Lecture Discussion	Exercises solution

					Exercises solut
Eighth	2	Calculate mean List its Find out Median and list its characteristics Find out mood characteristics	Descriptive Statistic III(measurement of central tendency)	Lecture Discussion Exercises solut	Exercises solution Quiz
Nineth	2		Monthly exam		
Tenth	2	Calculate variance of data Calculate standard deviation of data	Descriptive Statistic IV(measurement of dispersion) I	Lecture Discussion Exercises solut	Exercises solution
Eleventh	2	Calculate coefficient variance of data Calculate coefficient skewness of data	Descriptive Statistic IV(measurement of dispersion) II	Lecture Discussion Exercises solut	Exercises solution
Twelfth	2	Define normal distribution data List normal distribution characteristics	Descriptive Statist V Normal distribution	Lecture Discussion Exercises solut	Exercises solution Quiz
Thirteenth	2	Define hypothesis Construct two main type of hypothesis Define main concept related to testing hypothesis	Test of hypothesis	Lecture Discussion Exercises solut	Exercises solution
Fourteenth	2		Monthly exam		
Fifteenth	2	Define Variable and Entrance Data	Introduction to SP	Lecture Discussion Exercises solut Demonstration	Redemonstrat n

11. Course Evaluation:

Quizzes	10
Assignments	10
Written exam	10
Final exam	70

Total Mark: 100

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Lectures
Main references (sources)	Daniel W. Biostatistics A foundation for analysis In the health sciences. 9th ed. John

	Wiley & Sons, Inc.2019
Recommended books and references (scientific journals, reports…)	Aljandali A. Quantitative Analysis and IBM SPSS Statistics. Springer International Publishing Switzerland 2016 Salkind N. Statistics for people w (think they) hate statistics. 5th Los Angeles: Sage. 2014.
Electronic References, Websites	www.datatab.net

Course administrator
Hayder Ghaleb Jebur