

## **Biostatistics Course Description (2025-2026)**

1. Course Name:	<b>Biostatistics</b>
2. Course Code:	WNR-32-02
3. Semester / Year:	Second 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	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>• Demonstrate the statistical methods for collecting date, summarization, tabulation, presentation and analysis.</li> <li>• Apply manual calculation for descriptive and inferential tests.</li> <li>• Apply certain statistical program as excel or SPSS which are used for data analysis in computer.</li> <li>• Deal with different data sets such as hospital records.</li> </ul>
9. Teaching and Learning Strategies	
<b>Strategy</b>	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 Statistics I(tables)	Lecture Discussion Exercises solution	Exercises solution
Seventh	2	Construct graphs	Descriptive Statistics 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 Statistic 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. 9 <sup>th</sup> ed. John

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

**Course administrator**  
**Hayder Ghaleb Jebur**

