

Ministry of Higher Education and Scientific research



Department of Physical Education

College of Education-Shaqlawa

University of Salahaddin-Erbil

Subject: Principles of Statistics

Stage: Third

Lecturer's Name: Zanyar M. Mohammad

Academic Year: 2023-2024

## Course Book

<b>1. Course name</b>	Principles of Statistics
<b>2. Lecturer in charge</b>	Zanyar Mutalib Mohammad
<b>3. Department/ College</b>	Physical Education / College of Education-Shaqlawa
<b>4. Contact</b>	e-mail: <a href="mailto:zanyar.mohammad@su.edu.krd">zanyar.mohammad@su.edu.krd</a> Tel: +964(0)750 491 2320
<b>5. Time (in hours) per week</b>	4 hours
<b>6. Office hours</b>	8.30 A.M – 1.30 P.M on Saturdays and Wednesdays
<b>7. Course code</b>	
<b>8. Teacher's academic profile</b>	Master in Public Administration, College of Administration and Economics, Lebanese-French University (2011-2012)  Bachelor in Statistics, College of Administration and Economics, University of Salahaddin (2007-2008)
<b>9. Keywords</b>	Statistics, Mean, Mode, Medium, Variance and Standard Deviation
<b>10. Course overview:</b> The importance of the principles of statistics are demonstrated. The general purpose of this course is to study and give explanations about the fundamental principles and concepts of statistics.	
<b>11. Course objectives:</b> Introduce and exhibit several definitions of statistics. Elaborate on the importance of statistics. List the important characteristics of statistics. Enumerate the steps of conducting a statistical survey. Shade light on the types of statistics. Explain how to gather and collect data. Describe the methods of presentation and description of data. Differentiate between population and sample. Calculate mean, mode, and medium. Clarify measures of dispersion. Study correlation coefficients and regression.	
<b>12. Student's obligation</b> Students should attend the classes (lectures). They also have to take the quizzes, mid-term and final examinations. Students have to show eagerness to learn and acquire new information and knowledge.	
<b>13. Forms of teaching</b> Several forms of teaching will be used to reach the objectives of the course: - PowerPoint presentation for the head titles and summary of conclusion. - Use of whiteboard for more explanation of the complicated concepts. - Discussion for producing students of high-knowledge. - Giving assignments/homework and taking quizzes in addition to the mid-term and final examinations for evaluating the students' knowledge.	

#### 14. Assessment scheme

The students are required to do two closed book exams during the semester besides the assignments;

- **Mid- term Exam:** 40% (two exams at the mid of the semester)
  - 1<sup>st</sup> Mid- term Exam: 20%
  - 2<sup>nd</sup> Mid- term Exam: 20 %
- **Final Exam:** 60%

#### 15. Student learning outcome:

After completing this course, the students should be able to:

- know about the definitions of the major concepts used in statistics,
- list the essential steps of carrying out a statistical survey,
- analyse data, and
- calculate mean, mode, medium, standard deviation, and variance

#### 16. Course Reading List and References:

- PowerPoint slides
- Wasserman, L. (2004). *All of statistics: a concise course in statistical inference* (Vol. 26). New York: Springer.
- Bluman, Allan G., *Elementary Statistics (A step by step approach)*, 6th ed., 2007.
- Mood, A. M., Graybill, F. A., Boes, D. C., *Introduction to the theory of statistics*, McGraw-Hill Pub. 3rd ed., 1974.
- Weiss, N. A., *Elementary Statistics*, 4th ed., 1999.

#### 17. The Topics:

Week 1	Introduction to Statistics Statistics in Sports
Week 2	Data and Variables
Week 3	Population and Samples
Week 4	Frequency Table
Week 5	Graphical Method for Qualitative Data
Week 6	Graphical Presentation for Quantitative Data
Week 7	First Exam
Week 8	Measures of Central Tendency (Mean, Median, Mode)
Week 9	Measures of Dispersion
Week 10	The Coefficient of Variation
Week 11	Correlation & Regression

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Week 12	one way simple t-test
Week 13	Independent samples t-test
Week `14	paired samples T test
Week 15	One-way ANOVA
Week 16	Introduction to Spss Analysis of Data (Mean, Mode, Median, St. division, Variance, frequency table, ...),
Week 17	Dawning Chart (Pie Chart, Bar Chart, histogram Chart and Line Chart)
Week 18	Normal Distribution
Week 19	Solving Examples
Week 20	Review