

**American University of Beirut
Faculty of Arts and Sciences
Department of Education**

Course Number and Title: EDUC 227: Statistics in Education

1. Course Learning Outcomes

1. Organize, analyze, represent and interpret data for realistic problems using basic concepts and techniques of descriptive statistics with and without the use of Statistical Package for Social Sciences (SPSS)
2. Organize, Analyze, and interpret data for realistic problems concepts and techniques of correlation and regression with and without the use of Statistical Package for Social Sciences (SPSS)
3. Design, apply, and interpret statistical testing of hypotheses about means and frequency distributions with and without the use of Statistical Package for Social Sciences (SPSS)
4. Appreciate the use of statistical mode of thinking, concepts, and techniques in life and social sciences

2. Resources Available to Students

- Hinkle,D., Wiersma,W., & Jurs, S. (Latest Edition). Applied statistics for the behavioral sciences. Boston: Houghton Mifflin Company
- SPSS software can be accessed through AUB Homepage at the following address:
http://softtools.aub.edu.lb/guestapps_nfuse.asp

3. Grading Criteria

1-Test 1	25%
2-Test 2	25%
3-Final	35%
4-Data analysis project using SPSS	15%

4. Course Policy (if any)

- * Students who receive credit for this course cannot receive credit for any other introductory statistics course, such as STAT 201 or STAT 233 or ECON 213.
- * All tests and final are open book and open notes.
- * Attendance is highly recommended, particularly computer lab sessions

5. Schedule

Week	Topic	Textbook Chapter
1	*Basic concepts	1
	*Organizing and graphing data	2
2	*Percentiles	3
	*Measures of central tendency	3
3	*Measures of variation	3
	*Standard scores	3
4	*Normal distribution	4
5	*Correlation	5
<u>Test 1</u>		
6,7	*Linear Regression	6
8	*Probability and sampling distribution	7
9 & 10	*Hypothesis testing and estimation: one-sample case for the mean	8, 9
<u>Test 2</u>		
11 & 12 & 13	*Hypothesis testing and estimation: Two-sample case for the mean	11
14 & 15	*Chi-square	21
Data Analysis Project		
Final		