

**American University of Beirut  
Faculty of Arts and Sciences  
Department of Social and Behavioral Sciences**

**SBHS 223, Experimental Methods**

**1. Course Learning Outcomes**

Experimental methods (or research methods in psychology) is in a number of ways one of the most challenging and demanding courses you will take as an undergraduate psychology student. First, it introduces you to the principal techniques of data collection and analysis that you will need to know about to function as fully equipped psychologists. Second, and perhaps of most immediate and general benefit, it teaches you things that will help you to evaluate the methods and analyses reported by researchers in the papers you read on *all* your courses in psychology. Rather than having to take the authors' word for it, after this course you should be able to tell whether their analysis is appropriate, their interpretation of their findings matches yours, their data might have been better analyzed, and so on. These are skills that will greatly enhance your capacity to read papers critically and to contribute thoughtfully to seminar discussions, prepare presentations and write good essays. Finally, by taking this course you will have the opportunity to fully carry out an empirical/field study investigating any psychology topic that is of interest to you.

The aim of this course is to familiarize you with the principal research methods and methods of analysis employed in contemporary psychology. Its objectives are to give you knowledge and experience in a broad range of methods widely used in psychology, including both experimental and non-experimental designs.

Consequently, by the end of this course you should:

- 1- Have acquired a basic but rigorous grounding in the areas of research methods listed in the course summary.
- 2- Have developed your skills in forming coherent and logical arguments, being able to evaluate competing viewpoints and theoretical positions, demonstrating independence of thought and, in particular, respecting and being able to evaluate empirical evidence.
- 3- Have developed the skills needed to design and set up effective experiments to test hypotheses.
- 4- Have experience in searching the literature, including the use of relevant online data sources such as PsychLit, library catalogue and the World Wide Web.
- 5- Have developed some skills in writing effective and rigorous academic research projects
- 6- Have some familiarity with SPSS, the main statistical software of the social sciences.
- 7- Have a direct experience in choosing the adequate psychometric instrument, in collecting field data, and statistically analyzing it.

Note of warning: the course develops at a very fast and condensed pace. We will be covering up to two chapters every single week.

**2. Resources Available to Students**

SBHS 223 relies on two texts that will be used alternately throughout the term. It is highly recommended that you own at least the primary text. Both texts are available at the library's reserve desk. Furthermore, hand outs detailing the outline and structure of every lecture will be provided at the beginning of every week.

The core text that will be used throughout the course is:

Title: *Experimental Methodology*, 8<sup>th</sup> edition (2001)

Author: Christensen, L. B.

Publishers: Allyn and Bacon

Secondary text:

Title: *Research Methods in Psychology*, 2<sup>nd</sup> Edition (2000)

Authors: G. M. Breakwell, S. Hammond, and C. Fife-Schaw

Publisher: Sage Publications

### 3. Grading Criteria

Your final grade in this course will be the result of your grades on the midterm exam, final exam, research project, and research and class participation. The distribution follows the table presented below:

Exam	Type	percentage
Midterm	80% multiple choice, 20% open ended questions	30%
Final Exam	80% multiple choice, 20% open ended questions	30%
Research project	No word limit	30%
Research credit	Participating in research	5%
Class participation	Attendance, class participation, and others	5%

Review sessions prior to the midterm and final exams will help you prepare the coming tests and will present you with sample questions to guide your preparations. Detailed guidelines about research projects and the criteria used to mark them will be discussed in detail.

### 4. Schedule

Week	Topic	Activities	Assignments
0	<b>General introduction</b>		
1	<b>C1: What is Science?</b>	Readings and discussion	
2	<b>C2: Nonexperimental research approaches</b> <b>C3: the experimental research approach</b>	Readings and discussion	Thinking of a research project
3	<b>C4: Problem identification and hypothesis formation</b> <b>C5: Ethics</b>	Readings and discussion	Research question and hypothesis (I) literature review (1)
4	<b>C6: Variables used in experimentation</b>	Readings and discussion	Research Question and Hypotheses (II)

5	<b>C7: Control in experimentation C8: Techniques for achieving constancy</b>	Readings and discussion	Threats to Validity (Literature review 2)
6	<b>C9: Experimental research designs C10: Quasi experimental designs</b>	Readings and discussion	Control techniques Midterm Exam
7	<b>Levels of measurement; Questionnaire design</b>	Readings and discussion	Questionnaire design and psychometrics
8	<b>Bivariate Statistical analyses</b>		
9	<b>Introduction to multivariate statistical analyses</b>		
10	<b>SPSS Workshop</b>	Workshop (data entry and descriptives)	
11	<b>SPSS Workshop</b>	Workshop (data analyses)	
12	<b>SPSS Workshop</b>	Data analyses; General discussion	Research project submission

## 5. Course Policy

Please be aware that AUB regulations related to academic dishonesty are quite clear (see AUB webpage for details). Cheating at exams, plagiarism, presenting work you did not do, violating rules of proper academic conduct and other related matters will be dealt with according to strict AUB recommendations. Academic dishonesty may produce an automatic and irreversible zero.

Furthermore, missing an exam or failing to present on the assigned date will lead to a rescheduling or make up exam **only** if the student provides an adequate AUH medical note, or excuse letters that are acceptable by the AUB administration.

Emails are core element in our communication: Suggested reading lists, lecture abstracts, seminar outlines and other relevant material will be regularly emailed to you. Consequently, regular access to your email accounts and familiarity with the internet are crucial elements if you are to keep up with the developments in this course.