



## Course Syllabus

<b>Course Code</b>	<b>Course Title</b>	<b>ECTS Credits</b>
PSY-245	Research Methods and Statistics I	6
<b>Prerequisites</b>	<b>Department</b>	<b>Semester</b>
PSY-110 & PSY-111	Social Sciences	Fall
<b>Type of Course</b>	<b>Field</b>	<b>Language of Instruction</b>
Required	Psychology	English
<b>Level of Course</b>	<b>Lecturer(s)</b>	<b>Year of Study</b>
1 <sup>st</sup> Cycle	Dr Menelaos Apostolou	2 <sup>rd</sup>
<b>Mode of Delivery</b>	<b>Work Placement</b>	<b>Co-requisites</b>
Face-to-face	N/A	None

### Course Objectives:

The main objectives of the course are to:

- Introduce students to the research methods employed in research in psychology.
- Provide students with the knowledge necessary for understanding and evaluating basic scientific research at least from a methods perspective.
- To introduce students to the principles of statistics that psychologists use in order to analyze data, giving emphasis to training in the usage of computerized statistical packages.

**Learning Outcomes:**

After completion of the course students are expected to be able to:

1. Demonstrate knowledge of research design and statistical concepts and methods relevant to psychological research. In particular, students are expected to develop an understanding of the different research methods available in psychology, and be able to apply them in addressing specific research questions.
2. Demonstrate knowledge of basic statistical analysis techniques relevant to psychological research. In particular, students are expected to develop an understanding of why statistics are necessary in research in psychology, and to demonstrate knowledge of basic statistical tools that psychologists employ for analyzing behavioral data.
3. Demonstrate knowledge of the main SPSS commands required for data analysis, including computing and recording variables, selecting cases, drawing charts and running basic inferential statistics.
4. 4. Demonstrate knowledge of how to write a research report using the latest edition of the APA manual.

**Course Content:**

1. Introduction to research methods in psychology
2. Introduction to qualitative research methods
3. Open-ended questionnaires, interviews, observation, case studies
4. Qualitative data analysis
5. Introduction to quantitative research
6. Experimental design
7. Questionnaire design
8. Fundamental principles of statistics
9. Key principles such as sampling, randomization, null hypothesis, probability theory, and decision making; descriptive statistical methods; type I and type II errors
10. Exploring Differences between variables
11. Independent-samples t-test
12. Paired-samples t-test

13. Non-parametric tests (Man-Whitney U test, Wilcoxon signed rank test)

**Learning Activities and Teaching Methods:**

Interactive Lectures, Lab Presentations, Project, Lab Tutorials, Practical Exercises

**Assessment Methods:**

Project, Mid-Term Exam, Final Exam.

**Required Textbooks / Readings:**

Title	Author(s)	Publisher	Year	ISBN
An Introduction to Statistics and Research Methods: Becoming a Psychological Detective	Davis, D.F. & Smith R. A.	Pearson	2020	978-0131505117

**Recommended Textbooks / Readings:**

Title	Author(s)	Publisher	Year	ISBN
SPSS Survival Manual (7 <sup>th</sup> Edition)	Pallant, J.	Open University Press.	2020	978-0335249497