### **Educational Research I** – 5 ECTS

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### **Course Description**

This is an introductory course that presents the basic dimensions of quantitative educational research. More specifically, the course discusses sampling size and sampling techniques, variable classification, Descriptive and Inferential Statistics. Key concepts include, among others, probability sampling, t-test, non-parametric tests, correlation analysis, categorical data analysis and multivariate techniques as well as applications through the SPSS software. No rigorous mathematical or statistical background is needed since the emphasis is on applications and presentation of the analysis.

## **Objectives**

Upon completion of the course the student will be able to:

- To devise and execute a sampling plan for quantitative studies in education
- To know the basic ideas of Descriptive Statistics
- To choose and conduct the appropriate technique of Inferential Statistics
- To interpret the research findings
- To know the fundamental commands of SPSS

# **Learning Outcomes**

- Developing skills regarding understanding, analyzing and comparing concepts and findings in quantitative research
  - Developing skills in using SPSS

| Structure:   |
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| 5 four-hour lectures.  |
| Students' Assessment:  |
| Written assignment on real data. Students analyze a real data set and present their research findings. |

Creswell, J. (2011). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research, Athens: Ellin/Ion (in Greek)
Katsis, A. Sideridis, G. And Emvalotis, A. (2010) Statistical methods in Social Sciences, Athens:

Topos (in Greek)

Bibliography:

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