COURSE OUTLINE

(1) GENERAL

SCHOOL	Social sciences		
ACADEMIC UNIT	Department of Sociology		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	650	SEMESTER	D
COURSE TITLE	Quantitative Methods		

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	WEEKLY TEACHING HOURS	CREDITS
	3	6
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	special background, specialised general knowledge, skills development
PREREQUISITE COURSES:	No prerequisite
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://www.soc.aegean.gr/ext-files/pm/pps/2022-650-en.pdf

(2) LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competencies of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

More than any other social science, sociology is distinguished by the various quantitative and qualitative methodologies that can be applied. The course's main objective is to introduce quantitative methods and their application to the study of social phenomena in the real world. This abundance allows social scientists the ability to interpret real-world phenomena. This course attempts to introduce the student to the principles of research design and the application of quantitative methods to it. By introducing students to the fundamentals of research design – and debates about the utility and validity of different research methods – this course seeks to teach students how to be discerning readers of social research and to provide them with the methodological foundations for future research efforts. After a week-long introduction to fundamental issues, the remainder of this course focuses on designing and running a survey while discussing how to process data. Approaches to measurement and hypothesis testing are examined. Topics are covered, including statistical sampling methods. Also covered are issues of formulating research questions and questionnaires, along with the

ethical issues that follow them

Learning objectives

1. Familiarise with quantitative research methods
2. Familiarisation and use of the basic principles of research and design of research questions
3. Familiarise with sampling and sample size methods, types of variables, descriptive and inductive statistical techniques as well as their application through SPSS statistical software.
4. Understanding the use of quantitative and qualitative methods depending on the research questions.
5. Synthesis of research and presentation of results
6. Familiarisation and understanding of the use of time series analysis (Time series analysis).
7. Using and learning the statistical package SPSS
8. Using and learning about the Vivo 10 package

Learning outcomes

At the end of this course, the student will be able to:

1. Understand the concept of quantitative research
2. Know the ontological and epistemological principles of quantitative research methods
3. Understand quantitative research design principles and techniques
4. Know sampling methods
5. Know quantitative data collection methods and tools
6. Know the methods of statistical analysis of quantitative research data
7. Raise awareness of the ethical issues of quantitative research
8. Formulate research questions
9. Work effectively in teams.
10. Develop study and research skills

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology
Adapting to new situations
Decision-making
Working independently
Team work
Working in an international environment
Working in an interdisciplinary environment
Production of new research ideas
Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and sensitivity to gender issues
Criticism and self-criticism
Production of free, creative and inductive thinking
……
Others…
…….

Search for, analysis and synthesis of data and information, with the use of the necessary technology
Adapting to new situations
Decision-making
Working independently
Team work
Working in an international environment
Working in an interdisciplinary environment
Production of free, creative and inductive thinking

(3) SYLLABUS

1st & 2nd Lecture	Introduction

1. Introduction and information about the course and assignments
2. Selection of the research approach
3. Research approaches (constructivism, positivism)
4. Quantitative and qualitative research designs
5. Review and use of literature
6. Use of theory in quantitative, qualitative and mixed research methods

3rd Lecture	Research objectives and questions

1. Statement of purpose in quantitative/qualitative and mixed analysis
2. Formulation of research questions in quantitative and mixed methods research
3. Null hypothesis, directional and non-directional hypotheses.

4th Lecture	Quantitative methods

1. Survey design
2. Instruments
3. Study variables
4. Experimental procedures
5. Validity

5th Lecture	Sampling

1. Sampling methods
2. Sample size

6th Lecture	Questionnaires / Interviews

1. Questionnaire design
2. Interviews design
3. Ethical issues and GDPR

7th Lecture	Quantitative data analysis

1. Encoding variables
2. Using SPSS
3. Descriptive statistics
4. Diagrams
1. Calculation of scales and reliability

8th Lecture	Quantitative data analysis

1. Calculation of variables
2. Null hypothesis testing
3. anova tests

9th Lecture	Quantitative data analysis

1. Cluster analysis
2. Factor Analysis

10th Lecture	Qualitative data analysis

1. Role of the researcher
2. Data Collection Processes
3. Data recording and analysis procedures
4. NVivo presentation

11th Lecture	Mixed methods
1. Types of mixed methods designs 2. Interpretive sequential designs 3. Presentation of results	
12th Lecture	Project presentations
13th Lecture	Project presentations

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face lectures and discussions. Active participation in the course and implementation of participatory teaching and learning
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Statistical software (SPSS) will be used. The university's online platform will be used to communicate with students, provide educational material, and provide student feedback. At the same time, the teacher will use electronic platforms to conduct polls during the course to achieve specific learning sub-objectives.
TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	*Activity* / *Semester workload* Lectures: 39 Group assignment: 45 Applications by the students in the classroom under the guidance of the teacher: 20 Independent study: 76 Course total: *180 hours (6 ECTS)*
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	1. Attendance and participation in lectures (10%) 2. Group assignment (50%) 3. Written exam at the end of the semester (40%) The exams will be 20 multiple choice questions and 2 questions, one of which must be answered. Students with demonstrated learning difficulties are provided with the support provided by legislation, academic practice and the nature of the course. Personal support will be provided to students on course issues by appointment or during office hours. General oral feedback in the classroom and written feedback for each separate assignment.

(5) ATTACHED BIBLIOGRAPHY

Textbooks

1. Babbie, E. (2011) Εισαγωγή στην κοινωνική έρευνα, Κριτική, Αθήνα.
2. Bryman, A. (2017) Μέθοδοι κοινωνικής έρευνας, Gutenberg, Αθήνα.
3. Creswell, J.W. and D.J. Creswell, (2019) Σχεδιασμός έρευνας. Προσεγγίσεις ποιοτικών, ποσοτικών και μεικτών μεθόδων, Αθήνα, Προπομπός

Suggested bibliography:

1. Stockemer, D., (2019), Quantitative Methods for the Social Sciences: A Practical Introduction with Examples in SPSS and Stata, Springer.
2. Field, A. (2016), Η διερεύνηση της στατιστικής με τη χρήση του SPSS της IBM, 1η εκδ, Προπομπός
3. Λαμπριανού Ι., και Καϊλή Χ., Ποσοτικές Μέθοδοι στις Κοινωνικές Επιστήμες με τα λογισμικά R & SPSS, Κυπρος, Πάργα