COURSE OUTLINE

1. GENERAL

SCHOOL	SOCIAL SCIENCES		
DEPARTMENT	PSYCHOLOGY		
LEVEL	*Undergraduate*		
COURSE CODE	**PSY-2202**	**SEMESTER**	3rd
COURSE TITLE	Psychometrics I: Psychometric Principles for Developing Psychological Measures		
COURSE INSTRUCTOR	Eirini Marina Mitropoulou Adjunct Professor Psychometrics		

TEACHING ACTIVITIES	WEEKLY HOURS	ECTS
Lectures	**3**	**5**

COURSE TYPE	Special Background (Compulsory)
PREREQUISITES COURSES:	Statistics I
INSTRUCTION/EXAM LANGUAGE:	Greek
OFFERED TO ERASMUS STUDENTS	YES (independent study of English literature, 1 assignment, and term paper)
COURSE WEB PAGE (URL)	https://elearn.uoc.gr/course/view.php?id=90

2. LEARNING OUTCOMES

Learning Outcomes

The aim of this course is to introduce students to the concepts necessary for an understanding of psychological testing. The first part of the course will be devoted to a general introduction of the course material with an emphasis on understanding statistical concepts related to test construction, test psychometric properties and test scores. The second part of the course will focus on scale development and the complexities/issues inherent in the development of a measure/scale/inventory. Course content will periodically explore current issues and controversies in the field.

At the end of the course, the students should be able to:

- Understand the basic statistical methods used in for the evaluation of the psychometric characteristics of a scale

- Know the psychometric techniques used for the psychometric justification and evaluation of a scale

- Know the different methods used to present and interpret scores obtained from a psychological instrument.

- Know the basic steps in the development of a psychological instrument

- Know the basic psychometric techniques used for the development of a psychological instrument

- Become familiar with the estimation of the basic psychometric indices using SPSS

General Competences

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Decision-making
- Working independently
- Production of free, creative and inductive thinking

3. COURSE CONTENT

- Lecture 1: Basic Psychometric Principles – Historical Overview
- Lecture 2: Basic statistical concepts in testing and assessment
- Lecture 3: Reliability
- Lecture 4: Methods of Estimating Reliability
- Lecture 5: Validity
- Lecture 6: Methods of Estimating Validity
- Lecture 7: Giving meaning to test scores – Norms
- Lecture 8: Item Analysis – Classical Test Theory
- Lecture 9: Item Analysis – Factor Analysis
- Lecture 10: Item Analysis – Item Response Theory (IRT)
- Lecture 11: Adapting scales to different cultural settings
- Lecture 12: Practicum – Steps in Scale Development (Part I)
- Lecture 13: Practicum – Steps in Scale Development (Part II)

4. INSTRUCTIONAL AND LEARNING METHODS - EVALUATION

INSTRUCTION METHOD	In class
INFORMATION AND COMMUNICATION TECHNOLOGIES USED	Use of ICT in teaching Support for learning through the E-learn online platform
TEACHING ORGANIZATION	<table><tr><th>Activity</th><th>Semester Work load</th><th>ECTS credits</th></tr><tr><td>Lectures</td><td>39</td><td>1.56</td></tr><tr><td>Laboratory Practice I</td><td>16</td><td>0.64</td></tr><tr><td>Laboratory Practice II</td><td>20</td><td>0.80</td></tr><tr><td>Independent Study</td><td>52</td><td>2.08</td></tr><tr><td>Final Exams</td><td>3</td><td>0.12</td></tr><tr><td>*Course Total*</td><td>*130*</td><td>*5.2*</td></tr></table>

STUDENT EVALUATION	Evaluation is in Greek and in English for Erasmus students.
	
	   I. 2 Laboratory Practices (30%: - 10%, 20%)
	
	   II. Final Exams (70%)

| | Evaluation criteria are presented during the 1st lecture of the semester. Moreover, all criteria are available to the students via the UoC e-learn platform. |

5. BIBLIOGRAPHY

- Suggested bibliography:

- Koulakoglou, K. (2013). *Psychometrics and Psychological Assessment* (3rd ed.). Athens: Patakis. [In Greek]

- Kontopoulou, E. (2002). *Psychometrics*. Athens: Interbooks [In Greek]

Additional reading:

- Alexopoulos, D. (2011). *Psychometrics.* Athens: Pedio. [In Greek]

- Briggs, S. R., & Cheek, J. M. (1986). The role of factor analysis in the evaluation of personality scales. *Journal of Personality, 54*, 106-148.

- Cho, E., & Kim, S. (2015). Cronbach's coefficient alpha: Well-known but poorly understood. *Organizational Research Methods, 18*, 207-230.

- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of the tests. *Psychometrika, 16*, 297-334.

- Cronbach, L., & Meehl, P. (1955). Construct validity in psychological tests. *Psychological Bulletin, 52*(4), 281-302.

- Harvill, L. M. (1991). Standard error of measurement. *Educational Measurement: Issues and Practice, 10*, 33-41.

- Messick, S. (1995). Validity of Psychological Assessment: Validation of Inferences from Persons' Responses and Performances as Scientific Inquiry into Score Meaning. *American Psychologist, 50*, 741-749.

- Kline P. (2000) *Handbook of Psychological Testing. (*2nd Ed). New York: Routledge