

## COURSE OUTLINE

### 1. GENERAL

<b>SCHOOL</b>	SOCIAL SCIENCES		
<b>DEPARTMENT</b>	PSYCHOLOGY		
<b>LEVEL</b>	<i>Undergraduate</i>		
<b>COURSE CODE</b>	<b>PSY-4202</b>	<b>SEMESTER</b>	6 <sup>th</sup>
<b>COURSE TITLE</b>	Development and Psychometric Evaluation of a Psychological Scale		
<b>TEACHING ACTIVITIES</b>	<b>WEEKLY HOURS</b>	<b>ECTS</b>	
Lectures	<b>3</b>	<b>7</b>	
<b>COURSE TYPE</b>	Skills Development (Laboratory)		
<b>PREREQUISITES COURSES:</b>	Statistics I (PSY1202) Psychometrics I (PSY2202)		
<b>INSTRUCTION/EXAM LANGUAGE:</b>	Greek		
<b>OFFERED TO ERASMUS STUDENTS</b>	NO		
<b>COURSE WEB PAGE (URL)</b>			

### 2. LEARNING OUTCOMES

<b>Learning Outcomes</b>
<p><i>This course is designed to help students to understand the basic principles of test development. During the course, students become familiar with many of the concepts needed to understand in order to develop a new instrument, such as item analysis, factor analysis, reliability, validity, norms, etc. The emphasis of this course is on the practical steps that should be followed to develop new instruments or adapt already existing scales from one cultural environment to another.</i></p> <p>At the end of the course, the students should be able to:</p> <ul style="list-style-type: none"> <li>• Understand the psychometric characteristics of a psychological measure</li> <li>• Understand the basic psychometric principles in the development of the psychometric instruments</li> <li>• Become familiar with possible factors that might cause measurement error and suggest ways to overcome it</li> <li>• Critically evaluate psychometric instruments based on both, their theoretical framework and their psychometric quality</li> <li>• Become familiar with standard procedures in the development of a psychological measure, such as item development, item analysis and evaluation of its reliability and validity</li> </ul>

### General Competences

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Production of new research ideas
- Decision-making
- Working independently
- Team Work
- Production of free, creative and inductive thinking
- Project planning and management

### 3. COURSE CONTENT

- Lecture 1: Design and Planning of the Course
- Lecture 2: Steps in Test Development – Assignment of the Projects)
- Lecture 3: Estimating the Reliability and Validity of a psychological scale
- Lecture 4: Item Development - Translating Items
- Lecture 5: Item Analysis – Classical test Theory
- Lecture 6: Item Analysis – Exploratory Factor Analysis
- Lecture 7: Confirmatory Factor Analysis
- Lectures 8 - 10: Independent Work (Psychometric Activities) – Personal Tutorials
- Lecture 11: Writing / Presenting Psychometric Material - (Guidelines)
- Lectures 12 – 13: Presentation of the running projects

### 4. INSTRUCTIONAL AND LEARNING METHODS - EVALUATION

<b>INSTRUCTION METHOD</b>	In class		
<b>INFORMATION AND COMMUNICATION TECHNOLOGIES USED</b>	Use of ICT in teaching Support for learning through the E-learn online platform		
<b>TEACHING ORGANIZATION</b>	<i>Activity</i>	<i>Semester Work load</i>	<i>ECTS credits</i>
	Lectures	39	1.56
	Laboratory Exercise I	10	0.40
	Laboratory Exercise II	10	0.40
	Laboratory Exercise III	10	0.40
	Laboratory Exercise IV	13	0.52
	Laboratory Exercise V	13	0.52
	Research Work	50	2.00
	Presentation	10	0.40

	Final Deliverable	20	0.80
	<b>Course Total</b>	<b>175</b>	<b>7.0</b>
<b>STUDENT EVALUATION</b>	<p>Evaluation is in Greek.</p> <p>Final course grade comes from:</p> <p>I. Laboratory Exams (60%)</p> <ul style="list-style-type: none"> <li>➤ 1<sup>st</sup>: Reliability – Validity (10%)</li> <li>➤ 2<sup>nd</sup>: Item Development (10%)</li> <li>➤ 3<sup>rd</sup>: Item Analysis (10%)</li> <li>➤ Exploratory Factor Analysis (15%)</li> <li>➤ Confirmatory Factor Analysis (15%)</li> </ul> <p>II. Team Work (40%)</p> <ul style="list-style-type: none"> <li>➤ Collaboration (10%)</li> <li>➤ Outcome (20%)</li> <li>➤ Presentation (10%)</li> </ul> <p>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.</p>		

## 5. BIBLIOGRAPHY

### Basic 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.