



## COURSE UNIT INFORMATION SHEET (*SYLLABUS*)

2021/2022

Study Programme: Undergraduate Degree in Psychology

<b>Name</b> <b>PSYCHOMETRICS</b> (3 <sup>rd</sup> Grade / 1 <sup>st</sup> Semestre / Compulsory Course Unit)
<b>Teaching staff</b> Maria João Afonso, PhD (Professor in charge); Maria João Varandas dos Santos, MA
<b>ECTS</b> 6
<b>Functioning</b> <ul style="list-style-type: none"><li>- Four hours of classes / week, two Theoretical (one class) and two Practical (four alternative classes).</li><li>- Tutorial schedule (3 hours available / week).</li></ul>
<b>Learning goals</b> <p><b>General:</b> Development of methodological skills, scientific humanism and ethical / deontological attitudes in psychological measurement and assessment.</p> <p><b>Specific:</b></p> <ul style="list-style-type: none"><li>- Achieving and constructing scientific knowledge in the field of psychological measurement: test construction and psychometric study;</li><li>- Achieving and constructing scientific knowledge about the variety of instruments for psychological measurement in the cognitive and conative domains;</li><li>- Achieving practical and deontological skills in psychological measurement and assessment,</li><li>- Achieving technical skills for the use of research methodologies (development of psychological measurement instruments suited for the Portuguese population, scientifically relevant and technically appropriate);</li><li>- Developing scientific, technical and deontological skills for the use of psychological tests in behavior observation and in assessment for intervention purposes, in various psychological intervention contexts.</li></ul>



### Skills to be developed

- Knowledge about the Psychometric Theory (theoretical models and empirical research): Measurement Theory (epistemological foundations of psychological measurement) and Tests Theory (theoretical and technical foundations of psychological measurement);
- Technical skills for the construction, metrological study, critical evaluation and practical use of instruments for psychological measurement and assessment;
- Knowledge of the ethical and deontological principles underlying measurement and assessment in psychology and development of adequate attitudes regarding its application;
- Skills for applying statistical methods to psychological measurement;
- Conceptualization of psychological measurement in the field of Psychology: connection to various domains (Differential Psychology, Cognitive Psychology, Personality Psychology); connection to application and intervention contexts (Clinical, Organizational, Educational, Forensic, Research, etc.).

### Prerequisites (precedences)

Not applicable.

### Contents

#### 1. PSYCHOMETRIC THEORY: MEASUREMENT THEORY

- Measurement in Psychology: origins, contexts, purposes and foundations
- Measurement Theory: measurement concepts; measurement stages; measurement models

#### 2. PSYCHOMETRIC THEORY: TEST THEORY

- Techniques for constructing, translating and adapting psychometric instruments
- Techniques for studying the psychometric proprieties of tests in different measurement models (True Score Theory and Item Response Theory)
  - Item Analysis
  - Reliability
  - Validity
  - Norms

#### 3. PSYCHOMETRICS AND THE ETHICS OF PSYCHOLOGICAL ASSESSMENT

- Technical and ethical perspectives on psychological assessment
- The assessment of cognitive dimensions
- The assessment of conative dimensions

#### 4. PRACTICAL USE OF PSYCHOMETRIC INSTRUMENTS

- Observation and measurement techniques
- Data analysis and score interpretation in the practical use of psychometric instruments.



## Bibliography

- Coaley, K. (2014). *An Introduction to Psychological Assessment and Psychometrics* (2<sup>nd</sup> ed). Sage Publications.
- Cohen, R.J. & Swerdlik, M.E. (2017). *Psychological testing and assessment: an introduction to tests and measurement*. 9<sup>th</sup> ed. McGraw-Hill.
- Gregory, R.J. (2014). *Psychological Testing: History, principles, and applications* (7<sup>th</sup> ed.). Pearson.
- Kaplan, R.M. & Saccuzzo, D.P. (2013). *Psychological Assessment and Theory. Creating and using psychological tests*. 8<sup>th</sup> ed. (International Edition). Cengage Learning.
- Urbina, S. (2014). *Essentials of Psychological Testing*. John Wiley & Sons.

## Teaching methods

- Dissertation lessons allowing student participation; theoretical presentation focusing on epistemological and conceptual frameworks for the understanding and the resolution of the kind of problems that emerge from psychological measurement and assessment;
- Theoretical-practical lessons, linking conceptual and application contents with practical components of the subject;
- Practical lessons, for direct contact and confrontation with contexts, problems and situations emerging from individual differences and their assessment;
- Compulsory practical assignments, aiming the development of practical skills and ethical and deontological attitudes in testing and assessment;
- Participation (optional) in ongoing psychometric research;
- Self-assessment exercises including questions similar to those used in the final exam (multiple choice or dissertation) followed by correction and discussion in class;
- Tutorial sessions, to support students in their study planning and in the practical tasks, in particular, the Practical Assignment, in weekly sessions - in person or online;
- E-learning, using the Moodle platform, for the distribution of documents and the assistance of student's training and practical assignment tasks.

## Evaluation Regimes (General and/or Alternative)

- General Evaluation Regime: includes Written Examination and two Practical Assignments. The compulsory Practical Assignments must be accomplished during the semester, while attending the practical lessons that support its execution.
- Alternative Evaluation Regime: there is no alternative regime. However, Portuguese students displaced in the ERASMUS Program will be allowed to carry out the Practical Assignments during the Semester.

## Evaluation Elements (Dates due, weights, minimum required grades)

- Written Final Examination: compulsory: for the assessment of students learning in the content areas explored in the theoretical, theoretical-practical and practical classes.



Weigthing in the final grade: 0,70, applied to the examination mark, when  $\geq 9,5$  (14 points / 20).

Examination structure: 10 Multiple Choice items (with theoretical, theoretical-practical and practical contents), with a brief written justification required, for the response choice made + 1 Dissertation item (with theoretical, theoretical-practical or practical content).

- **Practical Assignments**: compulsory; **two** group Practical Assignments (4 or 5 students), supervised and supported by the Tutorial sessions.

Weigthing in the final grade:: **0,15 x 2**, applied to the practical assignments mark, when  $\geq 9,5$  (6 points / 20).

- **Participation in Psychometric Research**: optional; getting at least 2 participants for a personality test standardization project (in progress) and observation/collaboration in a group administration session of this research. For the students who choose to cooperate with this project researcher, the weighting of **0,30** will be applied in full to the highest of the two grades obtained in the Practical Assignments.

- **Attendance and Participation**: students must attend at least 2/3 of face-to-face classes in each part of the UC (9 classes). Class attendance will be controlled and attendance information will be considered qualitatively for the purposes of rounding off the final grade.

#### → FINAL GRADE:

- In accordance with the paragraph 6 of Article 11 of the *General Regulation for Student's Learning and Skills Assessment, for the Faculty of Psychology of the University of Lisbon*, ratified on 04/03/2021, only students who have completed all of the course unit required evaluation elements are considered to be in conditions to be evaluated, and may be approved or disapproved.

- If **all of the three** compulsory evaluation elements meet the respective minimum criteria (are equal or above the minimum mark required for approval, 9,5), the weighting coefficients are applied, and the student receives the respective final grade.

- If **at least one of the three** required elements of evaluation do not reach the minimum standard of achievement, the student will receive the mark of the evaluation element that has not fulfilled the minimum criteria of use.

- If **at least one of the** required evaluation elements is missing, the student will receive a registration of "NA" [*Não Avaliado*] (No Evaluation) which means he or she has not the complete information to allow the grade attribution.

#### Rules for grade improvement

- All the grades - examination and / or practical assignments - can be improved in the 2nd Season;

- If one of the grades is stored for one year, because in the other required evaluation element it was not obtained the necessary approval, it can be improved in the following year;

- Practical assignments grades cannot be improved in the Special and Specific Season.



### Rules for students having previously failed the course unit

- Students will have to repeat the course unit if they don't achieve a grade which is equal or above 9.5, in one or both elements of evaluation (Written Examination and Practical Assignment) in 2019/2220.
- The grade obtained in one of the evaluation elements, Written Examination or Practical Assignments, while in the same year the approval is not attained at the other elements of evaluation, is stored for one school year, although it can still be improved in the first or in the second season of the following school year.
- When a student who failed the course needs to repeat the Practical Assignments, their themes must be different from the ones of the assignments previously done.

### Requirements on attendance and punctuality

- Attendance regime: the attendance to the classes is sincerely advised, and so the student should seek to be present at least at the minimum of 9 lessons / semester, as the students should attend at least 2/3 of the lessons of each type (Theoretical and Practical lessons).
- There is no maximum limit of nonattendances allowed; the number of attendances is entirely a student's responsibility. However, attendance in class will be registered for summary purposes and may be considered as qualitative information in student evaluation.

### Rules for special students (workers, elite athletes, student body leaders, military, fathers/mothers, with special needs) \*

- The only students qualified for the application of the law regarding the worker-student status, as well as other statutes covered by the law, are those who have formalized their status at the Academic Services.
- The working students who have formalized their status at the Academic Services can use the Tutorial periods for individual supervision of their training.
- The same principle of individual supervision is applied to other groups of students considered exceptions (top athletes, students association leaders, military students, parent students, students with special educational needs) who have formalized their status at the Academic Services.

### Languages of instruction

- Lectures and Final Examination: Portuguese (the exam can be answered in English).
- Readings: Portuguese, English, French and Spanish.

### Disciplinary violations and penalties

- According to the Article 13 of Chapter IV of the *Regulamento Geral de Avaliação de Conhecimentos e Competências dos Alunos da Faculdade de Psicologia da Universidade de Lisboa* [General Regulation for Students' Learning and Skills Assessment, for the Faculty of Psychology of the University of Lisbon], ratified on 04/03/2021:

1. The disciplinary infractions are defined in Article 2 of the *Regulamento Disciplinar dos Estudantes da Universidade de Lisboa* [Disciplinary Regulation for the Students of the University of Lisbon], or in any other regulatory or legal rule that may replace it. Additionally, Article 5 of the *Código de Conduta e de Boas Práticas da Universidade de Lisboa* [Conduct



and Good-practices Guidelines of the University of Lisbon], which refers to students' responsibilities, should also be considered.

2. More specifically, regarding the students' learning and skills assessment, those regulations define as disciplinary infractions the failure to respect the assessment procedures established standards and the instructions legitimately issued by any teacher or by the governments of the FPUL, adopting a conduct that may unfairly harm or benefit the student or another student, including the use of any kind of unauthorized means in these assessment procedures.

3. Disciplinary violations relating to students' learning and skills assessment include:

- a) Use, attempt to use, or make available to colleagues, in assessment tests, materials, information, notes, study aids or other unauthorized objects and equipment.
- b) Helping or attempting to help a colleague to commit a disciplinary violation.
- c) Presenting someone else's work as their own (plagiarism), namely, using totally or partially copied contents from someone else's work, without citing the sources.
- d) Submit as new a work already submitted in another context, in whole or in a significant part, even with minor changes, without mentioning this fact and without citing the respective source (self-plagiarism), except for situations where previous agreement by the teachers was granted.
- e) Using forged or transformed information, such as, for example, referring to non-existent authors or works, or attributing to these works or authors content that does not correspond to reality, without this being clearly explained.
- f) Using materials or information obtained illegitimately, such as, for example, recordings of classes held without authorization by the teachers, in the preparation or execution of evaluation elements.
- g) Interfere with, modify or attempt to modify ratings.
- h) Falsifying signatures on class attendance sheets, on documents relating to evaluation elements, or on any official document related to an academic process or statute.
- i) Making false accusations against teachers, management entities, colleagues or non-teaching staff of the FPUL, in evaluation related issues, without prejudice to the requirements of other legal or regulatory rules regarding acts of this type related to other subjects.

4. The disciplinary violation committed in carrying out any evaluation element, or in connection with it, may imply its invalidation.

5. The decision concerning a test invalidation is in the first instance to be made by the course unit's teacher, and it is mandatory to be communicated to the Pedagogical Council.

6. In case of a serious disciplinary violation, the Rector or the Director of the FPUL are the entities responsible for instituting any disciplinary proceedings, as well as defining the sanctions to be applied, under the *Regulamento Disciplinar dos Estudantes da Universidade de Lisboa* [Disciplinary Regulation for the Students of the University of Lisbon].