COURSE UNIT INFORMATION SHEET (*SYLLABUS*)

2021/2022

Study Programme: Undergraduate Degree in Psychology

Name

INTELLIGENCE (2nd Grade / 2nd Semester / Compulsory Curricular Unit)

Teaching staff

Maria João Afonso, PhD (Professor in charge); Maria João Varandas dos Santos, MA

ECTS

6

Functioning

- Four hours of classes / week, two Theoretical (one class) and two Practical (four alternative classes).
- Tutorial schedule (Theoretical Classes: 3 hours available / week; Practical Classes: 2 hours available / week).

Learning goals

General: Acquiring and developing knowledge, skills and epistemological attitudes appropriate for basic and applied research in the field of Human Intelligence.

Specific:

- Achieving and constructing scientific knowledge in the field of Intelligence, in terms of observation levels and of behavior understanding and explanation;
- Apprehending contrasts and complementarities between different paradigms (or metaphors) of intelligence research, based on the recognition of their foundations, goals and contributes;
- Achieving a conceptual framework for the understanding of individual differences in cognition, in terms of dimensions (*eg*, intelligence and abilities), varieties (*eg*, between individuals and groups), and factors behind psychological differences (*eg*, biological and environmental);
- Apprehending the nature, meaning and fundamentals of the main controversies emergent in the field of Intelligence and some of their consequences for psychological assessment and intervention;
- Developing scientific and technical skills for the use of research methods in the field of intelligence;
- Developing flexible and critical attitudes towards conceptual frameworks, methodological approaches, paths to knowledge integration and the questioning of intelligence assessment and intervention practices.

Skills to be developed

   - Knowledge in the domain of Intelligence: Epistemological framework for understanding and comparing different research paradigms; the "*locus*" and the "meaning" of the construct in contemporary Psychology; intelligence concepts, models and theories aiming at understanding the contours and essential features of the construct; knowledge on the

domains and subdomains of intelligence research; recognition of contemporary efforts for integration in the domain; knowledge on intelligence empirical research and on their applications to assessment and intervention in Psychology;

   - Knowledge of methodologies and research techniques used in the field of human intelligence: Contrasts and complementarities with other methodologies of Psychology;

   - Competences for locating, collecting and analyzing information obtained from sources and documents of a diversified nature and origin;

   - Skills for the application of statistics in the field of intelligence research;

   - Competences in conceptualizing fundamental and applied research of intelligence; recognition of the connection to other domains (Psychometrics, Psychological Assessment, Cognitive Psychology, Personality Psychology, Psychopathology); and of the connection to application or intervention contexts (clinical, organizational, educational, forensic, research, etc.).

Prerequisites (precedences)

Not applicable.

Contents

1. **Intelligence: From the concept to the construct** (Theoretical Classes)

    - Conceptualizing intelligence: Origins and development of research, concepts and definitions; current terminology.

    - Paradigms and metaphors of intelligence research: Contours and foundations of intelligence research; the metaphors of mind – BIOLOGICAL, GEOGRAPHIC, EPISTEMOLOGICAL, COMPUTATIONAL, SOCIOLOGICAL, and ANTHROPOLOGICAL.

    - Major intelligence models and their implications for theory, assessment, and intervention: The *locus* and the meaning of the construct in Psychology.

2. **Systems Metaphor: An integrative approach to intelligence research** (Theoretical Classes)

    - Gardner and the Multiple Intelligences Theory

    - Sternberg and the Successful Intelligence Theory

    - Salovey & Mayer and the Emotional Intelligence Theory

    - Ceci and the Bio-ecological Model of Intelligence

    - van der Maas and the Dynamical Model of General Intelligence

3. **Topics and debates in the field of intelligence** (Theoretical and Theoretical-Practical Classes)

    - Implicit and scientific concepts of intelligence: Is intelligence nothing more than a cultural product?

    - Intelligence, heredity and environment: Does intelligence depend on genes or can it be taught and trained?

    - One intelligence or several intelligences: Does general intelligence really "exist" or may intelligence be a plural concept?

    - The extremes of Intelligence: Mental retardation and high abilities (giftedness), are they just cognitive? What about the *idiots-savants*?

    - Intelligence x personality relationship: Why do smart people sometimes do dumb things?

    - Intelligence and Success: Does intelligence assessment predict success in life?

- Intelligence and Emotion: Is Emotional Intelligence a set of cognitive skills or a group of personality traits?

4. **Intelligence Assessment** (Theoretical-Practical Classes and Practical Classes)

- Paradigms/Metaphors of research and intelligence assessment: Methods, techniques and instruments.

- The measurement of General Intelligence:

  o From Binet to Wechsler: Individual tests of intelligence. Introduction to Wechsler's concept of intelligence and of intelligence assessment. Type of scores used in general intelligence test batteries (Ratio QI and Deviation QI) and its meaning, uses and limits.

  o G factor tests: Theoretical foundations, contents, purposes and contexts of use.

- The measurement of Aptitudes and Abilities: Multiple Aptitudes Tests

  o Multiple Aptitudes test batteries: Theoretical foundations, contents, purposes and contexts of use.

- Integrating differential measurement with cognitive assessment: Aptitude tests and the CHC model; The "new generation" instruments.

- Intelligence Assessment in the Systemic Paradigm: proposals, successes, and problems.

Bibliography

AFONSO, M.J. (2007). *Paradigmas Diferencial e Sistémico de Investigação da Inteligência Humana. Perspetivas sobre* Lugar *e o* Sentido *do constructo*. Unpublished Doctoral Dissertation. Universidade de Lisboa.

GOLDSTEIN, S., PRINCIOTTA, D., & NAGLIERI, J.A. (Eds.) (2015). *Handbook of Intelligence. Evolutionary Theory, Historical Perspective, and Current Concepts.* New York: Springer.

STERNBERG, R.J. (Ed.) (2018). *The Nature of Human Intelligence.* New York: Cambridge University Press.

STERNBERG, R.J. (Ed.) (2020). *Human Intelligence: An Introduction.* New York: Cambridge University Press.

STERNBERG, R.J., & KAUFMAN, S.B. (Eds.) (2011). *The Cambridge Handbook of Intelligence.* New York: Cambridge University Press.

Teaching methods

- Dissertation lessons, allowing student participation; theoretical presentation focusing on epistemological and conceptual frameworks, theoretical contents and critical perspectives;

- Theoretical-practical lessons, linking conceptual and application contents with practical components of the unit;

- Practical lessons, for direct contact and confrontation with contexts, problems and situations and controversies emerging in the field of intelligence assessment;

- Practical assignment (compulsory), aiming the development of theoretical and practical competences, as well as epistemological and ethical attitudes towards the domain of intelligence research;

- Self-assessment exercises in class, with sample questions of the kind used in the final examination (multiple choice) and their correction and comment in the class;

- Tutorial sessions, weekly scheduled, to support students in their study planning and in the practical assignment tasks;

- E-learning, using the Moodle platform, for document distribution, the assistance of student´s training and practical assignment tasks.

Evaluation Regimes

  - <u>General Evaluation Regime</u>: Includes Written Examination and compulsory (group) Practical Assignment.

  - In this course unit, it is **not applied any alternative regime**.

Evaluation Elements

  - **<u>Written Final Examination:</u>** <u>Compulsory</u>: For the assessment of students learning in the content areas explored in the theoretical, theoretical-practical, and practical classes.

        <u>Weighting in the final grade</u>: **0,70**, applied to the examination mark, when ≥ 9,5 (14 points / 20).

        <u>Examination structure</u>: 50 Multiple Choice items (with theoretical, theoretical-practical, and practical contents), with 3 answering options – 0,4 points each question.

  - **<u>Practical assignment:</u>** <u>Compulsory</u>; group assignment (5 students) supervised and supported by the Tutorial sessions; themes will be presented at a practical class.

        <u>Weighting in the final grade</u>: **0,30**, applied to the practical assignment mark, when ≥ 9,5 (6 points / 20).

        <u>Deadline</u>: Deadlines will be set, depending on the registration and distribution of the themes.

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

→ FINAL GRADE:

  - In accordance to the Article number 7 of the Learning Assessment Regulation [*Regulamento de Avaliação das Aprendizagens*], only the students who <u>succeeded in both compulsory evaluation elements</u> are considered to be in conditions to be evaluated, and then receiving an approved or a not approved evaluation.

      - If **both** 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 **one of the two** required elements of evaluation does 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 **one or both** the required evaluation elements are 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 final grade attribution.

Rules for grade improvement

  - Any of the two grades – written Examination and Practical Assignment – can be improved in the 2nd Season of evaluation.

  - 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 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 evaluation elements (written examination and practical assignment);

- The grade obtained in one of the evaluation elements, written examination or practical assignment, while in the same year the approval is not attained at the other evaluation element, is <u>stored for one school year</u>, but 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 Assignment, because the previous assignment lost its 1-year validity, the theme must be different from the one of the previous assignment.

Requirements on attendance and punctuality

- <u>Attendance regime</u>: The classes attendance is <u>compulsory</u>, and so the student must attend at least **9 classes of each type** (Theoretical and Practical lessons) (at least 2/3 of the lessons of each type);

- As already mentioned in the "Evaluation Elements" topic, attendance information (the number of classes attended above the compulsory minimum) will be considered qualitatively for the purpose of rounding off the final grade.

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 and study.

- 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.

Language 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].