

Psychological Sciences and Techniques

| General information | |
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| Academic subject | Psychometrics |
| Degree course | Psychological Sciences and Techniques |
| Academic Year | II |
| European Credit Transfer and Accumulation System (ECTS) | 9 |
| Language | Italian |
| Academic calendar (starting and ending date) | I semester |
| Attendance | Not compulsory |

| Professor/ Lecturer | |
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| Name and Surname | Alessandro O. Caffò |
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| Telephone | 080 5714507 |
| Department and address | Room 413, IV Floor, Chiaia-Napolitano Building, Department of Educational Sciences, Psychology, Communication, Via Crisanzio, 42 – 70122 Bari (BA) |
| Virtual headquarters | Virtual Room on Microsoft Teams platform "Ricevimento Alessandro Caffò" code uj7fxi3 |
| Tutoring (time and day) | Every Tuesday from 10 AM to 12 AM, by email appointment |

| Syllabus | |
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| Learning Objectives | The course has the aim to provide theoretical competencies and practical skills specifically referred to measuring in psychology, and to applying mathematics and statistics to psychological constructs, with a special focus on cognitive domains and functions in adult and old age. |
| Course prerequisites | Knowledge of the basic concepts of descriptive and inferential statistics, and of research methodology in psychology |
| Contents | <p>A) Descriptive statistics, measurement scales, methodology of research: a review of basic concepts</p> <p>B) Introduction to inferential statistics I</p> <ol style="list-style-type: none"> 1) Group-population comparison 2) Two groups comparison 3) Two conditions in the same group comparison 4) Non-parametric statistics: binomial test and chi-square test <p>C) Introduction to inferential statistics II</p> <ol style="list-style-type: none"> 1) Pearson's Correlation 2) One-way Analysis of Variance 3) Linear Regression <p>D) Psychological data analysis with jamovi software</p> |
| Books and bibliography | <ol style="list-style-type: none"> 1) Primi, C., & Chiesi, F. (2008). Introduzione alla psicometria. Laterza. 2) Areni, A., Scalisi, T. G., Bosco, A., Caffò, A. O. (2020). Esercitazioni di psicometria. Edra. <p>For Erasmus students:</p> <ol style="list-style-type: none"> 3) Kline, P. (2000). A psychometrics primer. Free Assn Books, or equivalent. |
| Additional materials | The proposed books might be integrated with study materials provided by the teacher |

| Work schedule | | | |
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| Total | Lectures | Hands on (Laboratory, working groups, seminars, field trips) | Out-of-class study hours/ Self-study hours |

| Hours | | |
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| 225 | 60 | 165 |
| ECTS | | |
| 9 | 2.4 | 6.6 |
| Teaching strategy | Teaching is based on the introduction of contents from the teacher and on in-class discussion, throughout frontal lessons and practical exercising. | |
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| Expected learning outcomes | | |
| Knowledge and understanding on: | The course has the aim to provide knowledge and skills of comprehension of basic concepts of psychometrics and statistics applied to psychological disciplines and constructs. | |
| Applying knowledge and understanding on: | The course has the aim to provide knowledge and skills to comprehend and apply basic psychometrics concepts and techniques with a professional approach, and adequate competencies in order to both support argumentations and solve problems within psychological disciplines. | |
| Soft Skills | Autonomy of judgment Ability to collect, analyse and critically interpret data related to psychological variables; ability to formulate informed judgements, ability to critically think on scientific or ethical topics related to psychological subjects Communicating knowledge and understanding Ability to communicate information, results, ideas, problems and solutions to specialized and non-specialized audience Capacities to continue learning Learning abilities in order to undertake further studies with a high degree of autonomy, as well as professional activities with a high intellectual content | |

| Assessment and feedback | |
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| Methods of assessment | Solving exercises and problems of psychometrics applied to psychological constructs and interpretation of results, answers to closed questions, short answers to open questions. The exam includes a written test lasting 90 minutes. Intermediate exemptions may be expected during the course and / or Guided Practical |

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| | Exercises (EPG) on monographic topics. |
| Evaluation criteria | <p>Knowledge and understanding: The student must have made the teaching contents his own</p> <p>Applied knowledge and understanding: The student must have acquired the following skills: be able to recognize and apply basic psychometric techniques and the appropriate statistics to analyze data relating to psychological constructs</p> <p>Autonomy of judgment: The student must have acquired the skills to collect, analyze and critically interpret data relating to psychological variables; ability to formulate critical and autonomous judgments, including the ability to reflect on scientific or ethical issues related to psychological disciplines</p> <p>Communication skills: The student must have acquired the ability to communicate information, results, ideas, problems and solutions to specialist and non-specialist interlocutors</p> <p>Ability to learn: The student must have acquired the learning and self-training skills necessary to undertake subsequent studies with a high degree of autonomy, as well as professional activities with a high intellectual content</p> |
| Criteria for assessment and attribution of the final mark | The final grade is awarded out of thirty. The exam is passed when the final grade is greater than or equal to 18/30. In the presence of exemptions, the final mark is given by the average of the marks of each exemption, always expressed out of thirty. |
| Additional information | All the communications to the students will be provided within the teacher's webpage on the website of the Department. |
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BARI, 24/06/2022

SIGNATURE

ALESSANDRO ORONZO CAFFO'

