SYLLABUS

1. Course title:

Measurement theory

2. Code:

3. Cycle of study:

1

4. ECTS credits:

6

5. Type of course:

◉ Mandatory　　　○ Elective

6. Prerequisites:

7. Class restrictions:

8. Duration / semester:

| 1 | | 6 |

9. Weekly contact hours:

9.1. Lectures:	3
9.2. Seminars:	0
9.3. Laboratory/Practice classes:	2

10. Faculty:

Humanities and Social Sciences

11. Department/study program:

Pedagogy-Psychology/PSYCHOLOGY

12. Lecturer:

13. Lecturer's e-mail:

14. Web site:

www.unitz.ba

15. Course aims:

Upon completion of the course, students should able able to:
- Understand psychometric theories and basic assumptions needed for the construction of measurement instruments,
- Be able to evaluate psychological measures based on reliability, validity, discriminative ability,
- Understand key legal and ethical issues in the field of psychological testing

16. Learning outcomes:

-Introduce students to the measurement criteria in psychology,
- Acquire basic knowledge on the evaluation of reliability and validity in psychological assessment,
- Introduce students to the main theories of measurement: classical test theory (CTT), generalizability theory, item response theory (IRT),
- Introduce students to various measures for examining attitudes, states, opinions,
- Introduce students to measurement procedures and procedures used in measurement theory,
- Prepare students to use measurement instruments and interpret their results.

17. Course content:

- Measurement in psychology, problems of psychological constructs, measurement theory, direct and indirect measurement, psychophysiological and psychological scaling, test, test components, testing procedures, types of tests, test scores and their conversion, standardization
- Criteria and standards for test evaluation,
- Characteristics of a good measuring instrument: reliability, discriminative ability, validity
- Measurement errors, theory of the true response, sources of error variance, correction of measurement bias,
- Reliability and assessment of reliability, quantitative indicators of reliability,
- Discrimination and sensitivity ability assessment,
- Interpretation of measurement results,
- Classical test theory,
- Theory of generalizability,
- Theory of item response
- Rasch's model for dichotomous data,
- Validity and assessment of validity (construct, content, criterion validity: concruent and predictive,
- Items, item types, item analysis.

18. Learning methods:

Lectures and practical classes with the use of various multimedia teaching aids, including active participation of students.

In lectures and practical classes will be used: the method of oral presentation, method of demonstration and illustration, seminar discussions, interactive teaching methods.

19. Assessment methods:

a) Written Exam
b) Oral Exam

The written exam includes written knowledge assessment (objective and essay tests). Assessment will be realized through questions and answers regarding the course content. It will be done after the realization of planned lectures. Minimum number of points for passing the written exam is 24 (more than 60%).
Oral exam is meant for students with minimum number of points in the written exam (24).
Written exam
Written exam follows after the end of the course. Students will be presented a combination of essay and objective questions. Students who pass the written exam (achieve 24 to 40 points), gain conditions to take the oral exam. Students can earn a maximum of 40 points in the written exam. Minimum number of points required to pass the exam is 24.

Oral exam
Oral exam will include questions and students' answers regarding the course content and it will last for 15 to 30 minutes. Maximum number of points that can be earned in the oral exam is 10. Minimum number of points required to pass the exam is 6.

Pre-exam points amount to a total of 50 points (20 points for attendance and active in-class participation, 20 point s for the individual project and 10 points for the group project). By fulfilling all of their requirements, students can thus earn a maximum of 100 points.
The points count towards the final grade cumulatively if students score at least 60% points on the final exam (written and oral exam).
In order for students to earn the minimum passing grade, they need to score at least 54 cumulative points, of which at least 25 on the final exam. The final grade is formed as a sum of all points earned in-class and the final exam.

Exchange of any belongings between students is not allowed during the written exam. Students caught cheating or talking to others will be removed from the exam.

20. Assessment components:

Attendance in lectures and practical classes: 5 points
Active participation in lectures and practical classes: 15 points
Individual project: 10 points
Group project: 20 points
Final written exam: 40 points
Final oral exam: 10 points
Total points: 100
The following is the grading scale, showing the points, numerical grade, descriptive grade and letter grade:
0-53 5 (five) fail F
54-63 6 (six) satisfactory E
64-73 7 (seven) good D
74-83 8 (eight very good C
84-93 9 (nine) excellent B
94-100 10 (ten) outstanding A

21. Required reading list:

- Reynolds, C. R., Altmann, R. A., & Allen, D. N. (2021). Mastering Modern Psychological Testing: Theory and Methods (2nd ed.). Springer.
- Fajgelj, S. (2020). Psihometrija. (5. izdanje). Centar za primenjenu psihologiju.
- McDonald, R. P. (2014). Test Theory: A Unified Treatment. Psychology Press.
- Crocker, L. & Algina, J. (2008). Introduction to classical and modern test theory. Cengage Learning.
- Nunnally, J.C., & Bernstein, I.H. (1994). Psychometric Theory (3rd Ed.). McGraw-Hill.

22. Web sources:

http://www.measurementdevices.com/mtheory.html
http://suppes-corpus.stanford.edu/display_article.html?articleid=392
http://www.socialresearchmethods.net/kb/scalgutt.htm

23. Applicable starting from the academic year:

2022/2023

24. Adopted in the Faculty/Academy session: