# **SYLLABUS**

# 1. Information about the study program

1.1 Higher education	Babeş-Bolyai University
institution	
1.2 Faculty	Faculty of Psychology and Educational Sciences
1.3 Department	Department of Psychology
1.4 Field of study	Psychology - Cognitive Sciences
1.5 Study cycle	Bachelor level
1.6 Study program /	Psychologist
Qualification	

# 2. Information about the course

2.1 Title of the cour	2.1 Title of the course Psychological			Assessment II			
2.2 Teacher in charge of the lecture Anca Dobrean, Prof PhD							
2.3 Teacher in charge of the seminar			Ra	luca Georgescu, PhD			
2.4 Study year	II	2.5 Semester	4	2.6. Examination	Е	2.7 Course type	DD
				type			

# **3. Estimated total time** (number of hours of teaching activities per semester)

3.1 Number of hours per week	4	out of which: 3	2 2	3.3 seminar /	2
		lecture		laboratory	
3.4 Total number of hours in the	56	out of which: 3	5 28	3.6 seminar /	28
curriculum		lecture		laboratory	
Distribution of the allocated amou	int of	time:			hours
Individual study (textbook, course support, bibliography, and notes)					25
Supplementary documentation at the library using specialized electronic platforms					
in the field					
Preparing for seminars / laboratories, homework, papers, portfolios, and essays					
Tutoring					
Exams					
Other activities: research activities					2
0.7.TD + 1		70			•

3.7 Total number of hours of	70
individual study	
3.8 Total number of hours per	125
semester	
3.9 Number of credits (ECTS)	5

# **4. Prerequisites** (if applicable)

4.1 Curriculum	Introduction to psychology
	Quantitative research methods and statistics
4.2 Competencies	Descriptive and Inferential Statistics

# **5. Requirements** (if applicable)

5.1 For the lecture	Classroom with at least 180 seats, computer and video projector / Online
	course conducted through the MS Teams platform.
5.2 For the seminar /	Room with at least 50 seats, computer and video projector / Online seminar
laboratory	conducted through the MS Teams platform.

# 6. Specific skills acquired

	Knowledge and understanding				
	Knowledge and understanding of the core concepts and principles of cognitive abilities evaluation				
	<ul> <li>Demonstrate knowledge about the dominating models of intelligence and understanding about the division into general intelligence and specialized cognitive abilities</li> </ul>				
	Be able to describe the factors that affect intelligence and their relative contributions, specifically in terms of behavioural genetic analyses of shared environment, unique environment, and genetic factors				
Professional	<ul> <li>Demonstrate an understanding of how intelligence is related to outcomes, such as educational attainment, career success, physical and psychological health, and quality of social relations</li> </ul>				
skills	Be able to describe the dominating explanations for both decreasing and increasing intelligence across time and between generations that have been observed				
	Explanation and interpretation				
	Learning which methods and techniques are required to investigate the psychometric properties of a cognitive abilities test or questionnaire, when and how these methods and techniques can be applied, and how their results can be interpreted.				
	<ul> <li>Identify and critically assess the various instruments of intelligence assessment.</li> <li>Explain the main principles of psychometric assessment.</li> <li>Evaluate the psychometric properties of assessment instruments.</li> <li>Critically assess the clinical application and use of psychometric tests.</li> <li>Identify ethical and multicultural issues pertaining to the psychometric.</li> </ul>				

	<ul> <li>assessment of intelligence.</li> <li>Perceive possible biases in the use of psychometric tests in a multicultural context.</li> </ul>					
	Instrumental - applicative					
	Demonstrate ability to reflect on the meaning of intelligence for relevant societal issues and problems.					
	Demonstrate ability to interpret results from tests that measure intelligence					
	• Demonstrate awareness about critical perspectives on intelligence both as a concept and as a method for measuring cognitive ability					
Transversal skills	<ul> <li>Understand and promotes the values and principles of professional deontology in psychological testing and assessment;</li> </ul>					
	<ul> <li>Understand professional ethics and deontology in scientific research and practice;</li> </ul>					
	<ul> <li>Manifests a critical attitude in the scientific approach of psychological testing and assessment.</li> </ul>					
	Demonstrate ability to identify appropriate types of intelligence tests for various research- and evaluation purposes					
	Demonstrate ability to apply the knowledge above to relevant societal issues and problems					

# **7. Objectives of the course** (based on the grid of acquired competencies)

7.1	The course provides essential knowledge about the concept of intelligence and its					
General	significance from a broad differential-psychology perspective. Principal features of the					
objective	present state and more than 150-year history of intelligence research are described, with					
	central terms such as: psychometric intelligence, general intelligence (g), intelligence					
	quotient (IQ), and cognitive ability. Students will become acquainted with the					
	dominating models of psychometric intelligence and will discuss different definitions of					
	intelligence. One main theme is validity and reliability, with respect to associations and					
	causal relations between psychometric intelligence and outcomes, such as educational-					
	and career success, physical and psychological health, and social relations. Another					
	main theme is environmental and genetic factors that affect intelligence, and how they					
	are related to the Flynn effect and its contrast, decreasing IQ in several countries.					
	Critical arguments against both the concept of intelligence and its measurement are also					
	discussed.					
7.2	1. Knowledge and understanding					
Specific	• Discuss the main psychometric instruments assessing intellectual aptitude and					
objectives	β					

psychological functioning.

- Discuss the principles of psychometric assessment and the properties of
- psychometric instruments.
- Explore multicultural perceptions of intelligence and related biases in the use of psychometric instruments.
- Describe the utility and application of intelligence assessment
- Discuss the strengths and weaknesses of psychometric instruments in the assessment of cognitive intelligence.
- Discuss ethical implications surrounding theories of intelligence and its assessment.

## 2. Explanation and interpretation

Learning which methods and techniques are required to investigate the psychometric properties of a cognitive abilities test or questionnaire, when and how these methods and techniques can be applied, and how their results can be interpreted:

- To create the environment for understanding the fundamental vocabulary and logic of intelligence assessment/ cognitive abilities;
- To develop the capacity for critical judgment of the adequacy of measures purported to assess intelligence/ cognitive abilities;
- To stir the appreciation of and an interest in the principles and methods of psychometric theory in general and intelligence/cognitive abilities assessment in particular;

## 3. Instrumental – applicative

- To develops the basic prerequisites as a future psychologist;
- To evaluate the psychometric properties of assessment instruments.
- To critically assess the clinical application and use of psychometric tests.

#### 4. Attitudinal

To develop a scientist–practitioner attitude towards psychological testing and assessment of cognitive abilities/intelligence.

#### 8. Content

8.1 Lecture	Teaching strategies	Remarks
1.Cognitive abilities: definition, classification	Lecture, demonstrative example,	
	synthesis of knowledge, guided	
	discovery	
2. Cognitive abilities: Theoretical perspectives on	Lecture, demonstrative example,	
intelligence	synthesis of knowledge, guided	
	discovery	
3. The use and clinical application of	Lecture, demonstrative example,	
psychometrics in the assessment of intelligence	synthesis of knowledge, guided	
	discovery	
4. Cognitive abilities: Introduction to the concept	Lecture, demonstrative example,	

of intelligence and the history of studying intelligence	synthesis of knowledge, guided discovery
5. Raven's Progressive Matrices Test: theoretical framework, description, and use.	Lecture, demonstrative example, synthesis of knowledge, guided discovery
6. Wechsler scales: theoretical framework, description and use.	Lecture, demonstrative example, synthesis of knowledge, guided discovery
7. Wechsler scales (WISC for Children): theoretical framework, description, and use.	Lecture, demonstrative example, synthesis of knowledge, guided discovery
8. General intelligence assessment tools (Wais-IV, WPPSI, Standford Binet -5)	Lecture, demonstrative example, synthesis of knowledge, guided discovery
9. Intelligence and early cognitive abilities: developmental scales	Lecture, demonstrative example, synthesis of knowledge, guided discovery
10. Neuropsychological assessment: description of the main assessment tools.	Lecture, demonstrative example, synthesis of knowledge, guided discovery
11. Memory assessment: description of the main evaluation tools.	Lecture, demonstrative example, synthesis of knowledge, guided discovery
12. Assessment of attention: description of the main evaluation tools.	Lecture, demonstrative example, synthesis of knowledge, guided discovery
13. Assessment of creativity: description of the main evaluation tools.	Lecture, demonstrative example, synthesis of knowledge, guided discovery
14. Assessment report	Lecture, demonstrative example, synthesis of knowledge, guided discovery

#### **References** \*

#### a. Mandatory:

- Andrewes, D. (2015). Neuropsychology: From Theory to Practice. Psychology Press.
- Dawn P. Flanagan, Alan S. Kaufman (2004) Essentials of WISC-IV assessment.
- Wiley & Sons, Inc., Hoboken, New Jersey Deary, I., Penke, L., Johnson, W. (2010). The neuroscience of human intelligence differences. Nature reviews. Neuroscience, vol 11, 201-211
- Dugan, A. (2006). Assessing the validity and reliability of a piagetian based paper-pencil test.
- Nisbett, R., Aronson, J., Blair, C., et al (2012). Intelligence: New Findings and Theoretical Developments. American Psychologist, 1-30
- Raven, J. (2000). The Raven's Progressive Matrices: Change and Stabilityover Culture and Time. Cognitive Psychology, 41, 1-48.

- Sternberg, R. (2010). Applying Psychologial Theories to Educational Practice. American Educational Research Journal, 45, 1, 150-165
- Sternberg, R. J., & Kaufman, S. B. (2011). *The Cambridge Handbook of Intelligence*. Cambridge University Press.
- Weidman, N. (2005). History of Intelligence Measurement. In *Encyclopedia of Statistics in Behavioral Science*. John Wiley & Sons, Ltd. https://doi.org/10.1002/0470013192.bsa382
- Woodford, H. J., & George, J. (2007). Cognitive assessment in the elderly: a review of clinical methods. QJM: An International Journal of Medicine, 100(8), 469-484.

#### b. Recommended:

- Cattell-Horn-Carroll CHC (Gf-Gc) Theory: Past, Present & Future http://www.iapsych.com/CHCPP/CHCPP.HTML Gardner Howard http://pzweb.harvard.edu/PIs/HG.htm
- Buckhalt, J. (2002). A short history of g: Psychometrics' most enduring and controversial construct. Learning and Individual differences, 13, 101-114
- Plucker, J. A. (Ed.). (2003). Human intelligence: Historical influences, current controversies, teaching resources. <a href="http://www.indiana.edu/~intell">http://www.indiana.edu/~intell</a>

\* as well as other bibliographic sources mentioned during the course activities

8.2 Seminar / laboratory	Teaching strategies	Remarks
1.Cognitive abilities: application of Flynn Effect.	Presentation, knowledge	
	synthesis, conceptual clarification,	
	group activities, guided discovery,	
	practical activities	
2. Cognitive abilities: associations with	Presentation, knowledge	
personality traits.	synthesis, conceptual clarification,	
	group activities, guided discovery,	
	practical activities	
3. The use and clinical application of	Presentation, knowledge	
psychometrics in the assessment of intelligence:	synthesis, conceptual clarification,	
applications.	group activities, guided discovery,	
**	practical activities	
4. Tests for measuring cognitive abilities in	Presentation, knowledge	
different cultures (cultural fair tests).	synthesis, conceptual clarification,	
	group activities, guided discovery,	
	practical activities	
5. Raven's Progressive Matrices Test: description,	Presentation, knowledge	
use and scoring.	synthesis, conceptual clarification,	
	group activities, guided discovery,	
	practical activities	
6. WISC-IV: description, use and scoring.	Presentation, knowledge	
	synthesis, conceptual clarification,	
	group activities, guided discovery,	
	practical activities	
7. Multiple intelligence tests (1): description, use	Presentation, knowledge	
and scoring.	synthesis, conceptual clarification,	
	group activities, guided discovery,	

	practical activities
8. Multiple intelligence tests (2): description, use	Presentation, knowledge
and scoring	synthesis, conceptual clarification,
C	group activities, guided discovery,
	practical activities
9. Early cognitive abilities (developmental scales)	Presentation, knowledge
and assessment of cognitive abilities in the elderly	synthesis, conceptual clarification,
(MMSE – II): description, use and scoring.	group activities, guided discovery,
1	practical activities
10. Neuropsychological assessment (NEPSY):	Presentation, knowledge
description, use and scoring.	synthesis, conceptual clarification,
	group activities, guided discovery,
	practical activities
11. Memory assessment: description, use and	Presentation, knowledge
scoring.	synthesis, conceptual clarification,
	group activities, guided discovery,
	practical activities
12. Assessment of attention (d2, Praga):	Presentation, knowledge
description, use and scoring.	synthesis, conceptual clarification,
	group activities, guided discovery,
	practical activities
13. Assessment of creativity: description, use and	Presentation, knowledge
scoring.	synthesis, conceptual clarification,
	group activities, guided discovery,
14.4	practical activities
14. Assessment report: applications	Presentation, knowledge synthesis,
	conceptual clarification, group
	activities, guided discovery,
	practical activities

#### **References** \*

#### a. Mandatory:

#### Cognitive abilities: application of Flynn Effect.

Dutton, E., van der Linden, D., & Lynn, R. (2016). The negative Flynn Effect: A systematic literature review. *Intelligence*, 59, 163–169. https://doi.org/10.1016/j.intell.2016.10.002 Pietschnig, J., Voracek, M. (2015), One Century of Global IQ Gains: A Formal Meta-Analysis of the Flynn Effect (1909–2013), *Perspectives on Psychological Science*, 282–306, https://doi.org/10.1177/1745691615577701

Deary, I., Penke, L., Johnson, W. (2010). The neuroscience of human intelligence differences. Nature reviews. Neuroscience, vol 11, 201-211

# Cognitive abilities: associations with personality traits.

Curtis, R., G., Windsor, D., T., Soubelet, A. (2014): The relationship between Big-5 personality traits and cognitive ability in older adults – a review, *Aging, Neuropsychology, and Cognition: A Journal on Normal and Dysfunctional Development*, doi: 10.1080/13825585.2014.888392 Zeidner, M., Matthews, G. (2000). Intelligence and Personality. In R. Sternberg (Ed.), *Handbook of Intelligence* (pp. 581-610). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511807947.027

#### Tests for measuring cognitive abilities in different cultures (cultural fair tests).

Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., Tay, C., & Chandrasekar, N. A. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance. Management and organization review, 3(3), 335-371. Cocodia, E., A. (2014), Cultural Perceptions of Human Intelligence, *Journal of Intelligence*, 180-196; doi:10.3390/jintelligence2040180

Ng, R. (2013). Cultural intelligence. The encyclopedia of cross-cultural psychology, 310-313.

## Raven's Progressive Matrices Test: description, use and scoring

Carpenter, P. A., Just, M. A., & Shell, P. (1990). What one intelligence test measures: a theoretical account of the processing in the Raven Progressive Matrices Test. Psychological review, 97(3), 404. Dobrean, A., Raven, J., Comṣa, M., Rusu, C., Balazsi, R. (2008) The Romanian Standardisation of the Standard Progressive Matrices Plus: Sample and General Results\*, In Raven, J. & Raven, J. (eds.), *Uses and* Abuses of Intelligence: Studies Advancing Spearman and Raven's Quest for Non-Arbitrary Metrics, (pp. 113-126), Unionville, New York, US, Royal Fireworks Press, http://eyeonsociety.co.uk/resources/fulllist.html#uses\_and\_abuses Raven, J. C. (1998). Raven's progressive matrices and vocabulary scales. Oxford pyschologists Press. Raven, J. (2000). The Raven's Progressive Matrices: Change and Stability over Culture and Time. Cognitive Psychology, 41, 1-48.

## WISC-IV: description, use and scoring:

Kaufman, A. S., Flanagan, D. P., Alfonso, V. C., & Mascolo, J. T. (2006). Test Review: Wechsler Intelligence Scale for Children, Fourth Edition (WISC-IV). Journal of Psychoeducational Assessment, 24(3), 278–295. doi:10.1177/0734282906288389

### Multiple intelligence tests: description, use and scoring

Naglieri J.A. (2001) Cognitive Assessment System (CAS). In: Dorfman W.I., Hersen M. (eds) Understanding Psychological Assessment. Perspectives on Individual Differences. Springer, Boston, MA Papadopoulos, T.,C. (2013), PASS theory of intelligence in Greek: A review, Preschool & Primary Education, 41-66, doi: dx.doi.org/10.12681/ppej.51 Davis, K., Christodoulou, J., Seider, S., Gardner, H. (2011). The theory of multiple intelligences. In R.J. Sternberg & S.B. Kaufman (Eds.), Cambridge Handbook of Intelligence (pp. 485-503). Cambridge, UK; New York: Cambridge University Press

## Neuropsychological assessment (NEPSY): description, use and scoring.

Brian L. Brooks, Elisabeth M. S. Sherman & Esther Strauss (2009) NEPSY-II: A Developmental Neuropsychological Assessment, Second Edition, Child Neuropsychology, 16:1, 80-101, DOI: 10.1080/09297040903146966 Gerken, K. C., Hancock, K. A., & Wade, T. H. (1978). A comparison of the Stanford-Binet Intelligence Scale and the McCarthy Scales of Children's Abilities with preschool children. Psychology in the Schools, 15(4), 468-472.

# Memory assessment: description, use and scoring.

Mungas, D. (1983). Differential clinical sensitivity of specific parameters of the Rey Auditory-Verba Learning Test. *Journal of Consulting and Clinical Psychology*, 51(6), 848–855. https://doi.org/10.1037/0022-006X.51.6.848

Rubiales, J., Russo, D., & Reyna, M. (2018). Rey Complex Figure Test and the evaluation of executi functions in children and adolescents. *Neuropsychological Trends*, doi:10.7358/neur-2018-024-rubi

# Assessment of attention (d2, Praga): description, use and scoring.

Cowan, N., Fristoe, N. M., Elliott, E. M., Brunner, R. P., & Saults, J. S. (2006). Scope of attention, control of attention, and intelligence in children and adults. Memory & cognition, 34(8), 1754-1768. Burns, N. R., Nettelbeck, T., & McPherson, J. (2009). Attention and intelligence: A factor analytic

study. Journal of Individual Differences, 30(1), 44-57. Bates, M. E., & Lemay, E. P. (2004). The d2 Test of attention: construct validity and extensions in scoring techniques. Journal of the International Neuropsychological Society, 10(3), 392-400. Schweizer, K., Moosbrugger, H., & Goldhammer, F. (2005). The structure of the relationship between attention and intelligence. Intelligence, 33(6), 589-611.

## Assessment of creativity: description, use and scoring.

Benedek, M., Jauk, E., Sommer, M., Arendasy, M., & Neubauer, A. C. (2014). Intelligence, creativity, and cognitive control: The common and differential involvement of executive functions in intelligence and creativity. Intelligence, 46, 73–83. https://doi.org/10.1016/j.intell.2014.05.007 Torrance, E. P. (1972). Predictive Validity of the Torrance Tests of Creative Thinking\*, The Journal of Creative Behavior, 6(4), 236–262. doi:10.1002/j.2162-6057.1972.tb00936.x Runco, M. A., Millar, G., Acar, S., Cramond, B. (2010). Torrance Tests of Creative Thinking as Predictors of Personal and Public Achievement: A Fifty-Year Follow-Up. Creativity Research Journal, 22(4), 361–368. doi:10.1080/10400419.2010.523393

#### b. **Recommended:**

Ang, S., & Van Dyne, L. (2015). Handbook of cultural intelligence: Theory, measurement, and applications. Routledge.

Cattell-Horn-Carroll CHC (Gf-Gc) Theory: Past, Present & Future -

http://www.iapsych.com/CHCPP/CHCPP.HTML

Dugan, A. (2006). Assessing the validity and reliability of a piagetian based paper-pencil test.

Gardner Howard http://pzweb.harvard.edu/PIs/HG.htm

Buckhalt, J. (2002). A short history of g: Psychometrics' most enduring and controversial construct. *Learning and Individual differences*, 13, 101-114

Plucker, J. A. (Ed.). (2003). Human intelligence: Historical influences, current controversies, teaching resources. http://www.indiana.edu/~intell

Lawrence G. W, Gregoire, LJ., Zhu, J., (2015). Flaws in Flynn Effect Research with the Wechsler Scales. *Journal of psychoeducational Assessment, 1-10*, DOI: 10.1177/0734282915621222.

Halpern, F., D., LaMay L.M., (2000). The Smarter Sex: A critical Review of sex differences in intelligence. *Educational Psychology Review*, 12, no 2.

Sternberg, R. (2010). Applying Psychologial Theories to Educational Practice. American Educational Research Journal, 45, 1, 150-165

\* as well as other bibliographic sources mentioned during the course activities

# 9. Correlations between the content of the course and the expectations of the representatives of the epistemic community, professional associations and representative employers in the field related to the program

- The main objective of this course is to facilitate the learning of the fundamental concepts, methods, and principles of psychological measurement. Particular attention will be devoted to reliability and validity issues underlying psychometric theory, and how psychometric theory relates to the assessment of individual differences or human individuality more generally.
- The course provides the necessary prerequisites for the use of psychological tests, as they are described in the documentation of the College of Psychologists of Romania (www.alegericpr.ro).

#### 10. Evaluation

Activity type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Weight in the final grade
10.4 Lecture	The correctness and completeness of knowledge; The assimilation of the specialized language; logical coherence	Written exam	60%
10.5 Seminar / laboratory	The capacity to apply the concepts and theoretical models used in psychological testing and assessment	Research project	40%

#### 10.6 Minimum passing score

- Acquiring the skills for evaluating and critique asses a psychological instument measuring cognitive abilities for its reliability, validity and biases;
- Acquiring the skills for identifying a range of psychological assessment tools for cognitive abilities
- Understand the validity and reliability, with respect to associations and causal relations between psychometric intelligence and outcomes, such as educational- and career success, physical and psychological health, and social relations.
- Understand the environmental and genetic factors that affect intelligence, and how they are related to the Flynn effect and its contrast; decreasing IQ in several countries.

# The final grade consists of:

- a. score obtained in the written exam
- b. score obtained at the research project

The structure of evaluation will be maintained for multiple rounds of evaluation

Date	Signature of the teacher in charge of the lecture	Signature of the teacher in charge of the seminar
30.09. 2021	Prof. univ.dr. Anca Dobrean	Dr. Raluca Georgescu
Date of approval in the department		Signature of the Head of the department /director
• • • • • • • • • • • • • • • • • • • •		