

SYLLABUS

1. Data about the program

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

2. Discipline data

2.1 Name of the discipline	Introduction to cognitive sciences						
2.2 The holder of the course activities	Daniel David, Professor PhD						
2.3 The holder of the seminar activities	Daniel David, Professor PhD						
2.4 Year of study	1	2.5 Semester	2	2.6. Type of evaluation	E	2.7 Discipline regime	DS

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

3.1 Number of hours per week	4	Of which: 3.2 course	2	3.3 seminar / laboratory	2
3.4 Total hours in the curriculum	56	Of which: 3.5 course	28	3.6 seminar / laboratory	28
Distribution of time fund:					hours
Study by textbook, course support, bibliography, and notes					56
Additional documentation in the library, on specialized electronic platforms and in the field					22
Preparation of seminars / laboratories, topics, papers, portfolios, and essays					20
Tutorship					4
Evaluations					2
Other activities: research activities					1
3.7 Total hours of individual study	98				
3.8 Total hours per semester	150				
3.9 Number of ECTS credits	6				

4. Preconditions (where applicable)

4.1 Curriculum	<ul style="list-style-type: none"> • Introduction to psychology • Experimental psychology
4.2 Competencies	-

5. Conditions (where applicable)

5.1 Course conduct	<ul style="list-style-type: none"> • Classroom with at least 180 seats, computer and video a projector / Online course conducted through the MS Teams platform.
5.2 Conducting the seminar / laboratory	<ul style="list-style-type: none"> • Room with at least 50 seats, computer and video projector / Online seminar conducted through the MS Teams platform.

6. Specific skills acquired

Professional competencies	<p>Knowledge and understanding</p> <ul style="list-style-type: none"> • Understanding the place and role of cognitive sciences in the current science world. • Knowledge of fundamental aspects and the role of cognitive sciences in human mind. • Characterization of the main study paradigms of cognitive sciences. • Understanding the role of cognitive sciences on various classical aspects of human mind. • Familiarization with the principles of fundamental research in cognitive sciences. <p>Explanation and interpretation</p> <ul style="list-style-type: none"> • Arguing the importance of the cognitive sciences in approaching human mind. • Interpretation of human mind from a cognitive sciences perspective. • Carrying out comparative analyses of the main study paradigms of cognitive sciences. • Explaining and arguing the experimental approach of human mind. <p>Instrumental - applicative</p> <ul style="list-style-type: none"> • Learning the main techniques for investigating human mind processes in the cognitive sciences. • Develops skills to conduct a research project. <p>Attitude</p> <ul style="list-style-type: none"> • Manifestation of a positive and responsible attitude towards the scientific field. • Cultivating a responsible attitude towards the research activity in the field. • Interest in personal development in the field.
Transversal competencies	<ul style="list-style-type: none"> • Written and oral communication skills. • Relationship and teamwork skills. • Competences regarding the management of material and time resources. • Competences in using scientific terminology in the field of cognitive science.

	<ul style="list-style-type: none"> • Competences for interdisciplinary use of knowledge and terminology in the fields of psychology and cognitive sciences.
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7. The objectives of the discipline (based on the grid of acquired competencies)

7.1 The general objective of the discipline	Familiarizing students with cognitive sciences.
7.2 Specific objectives	<ul style="list-style-type: none"> • Presentation of the cognitive sciences and their impact on studying human mind. • Analysis of the place and role of cognitive sciences in the current science system. • Discussion of the main research paradigms of cognitive sciences. • Cognitive sciences approach to the human mind.

8. Contents

8.1 Course	Teaching methods	Remarks
History of cognitive sciences Keywords: History of science, Cognitive sciences, Philosophy of science	Lecture, demonstrative example, synthesis of knowledge, guided discovery	
Fundamentals of cognitive sciences I Keywords: Psychology, Neuroscience, Artificial intelligence, Philosophy of mind	Lecture, demonstrative example, synthesis of knowledge, guided discovery	
Fundamentals of cognitive sciences II Keywords: Psychology, Neuroscience, Artificial intelligence, Philosophy of mind	Lecture, demonstrative example, synthesis of knowledge, guided discovery	
Fundamentals of representational theories	Lecture, demonstrative example, synthesis of knowledge, guided discovery	

Keywords: Cognitive sciences, Representational mind, Computation		
Fundamentals of cognitive architectures Keywords: Cognitive sciences, Mind architecture, Computation	Lecture, demonstrative example, synthesis of knowledge, guided discovery	
Classical computational cognitive representations and architectures Keywords: Cognitive architecture, Computation	Lecture, demonstrative example, synthesis of knowledge, guided discovery	
Neuroconnexionistic cognitive representation and architecture Keywords: Cognitive architecture, Connexionism	Lecture, demonstrative example, synthesis of knowledge, guided discovery	
Cognitive sciences and classical problems in psychology: Concepts and Meaning Keywords: Cognitive sciences, Concepts and Meaning	Lecture, demonstrative example, synthesis of knowledge, guided discovery	
Cognitive sciences and classical problems in psychology: Learning and Memory Keywords: Cognitive sciences, Learning and Memory	Lecture, demonstrative example, synthesis of knowledge, guided discovery	
Cognitive sciences and classical problems in psychology: Consciousness Keywords: Cognitive sciences, Consciousness	Lecture, demonstrative example, synthesis of knowledge, guided discovery	
Cognitive sciences and classical problems in psychology: Decision making & Problem solving Keywords: Cognitive sciences, Decision making, Problem solving	Lecture, demonstrative example, synthesis of knowledge, guided discovery	
Cognitive sciences and classical problems in psychology: Languages	Lecture, demonstrative example, synthesis of knowledge, guided discovery	

Keywords: Cognitive sciences, Language		
Cognitive sciences and classical problems in psychology: Emotions Keywords: Cognitive sciences, Emotions	Lecture, demonstrative example, synthesis of knowledge, guided discovery	
Cognitive sciences and classical problems in psychology: Psychopathology Keywords: Cognitive sciences, Psychopathology	Lecture, demonstrative example, synthesis of knowledge, guided discovery	
Mandatory references: Chipman, S. E. F. (ed.). (2017). <i>The Oxford handbook of cognitive science</i> . Oxford University Press. Keith Frankish and William Ramsey (eds.), (2012). <i>The Cambridge Handbook of Cognitive Science</i> , Cambridge University Press. !!! Note: from the works mentioned above, only the chapters related to the topics taught in the course and seminar are mandatory. Specific (new/classical) articles/chapters might be suggested in advanced for each topic. Optional references: Keating, D. P. (2011) (Ed.) <i>Nature and Nurture in Early Child Development</i> . New York, NY: Cambridge University Press. Johnson, M. H., & de Haan, M. (2015). <i>Developmental Cognitive Neuroscience: An Introduction</i> . (4th ed.). West Sussex, UK: Wiley Blackwell. Posner, M. I., & Rothbart, M. K. (2007). <i>Educating the Human Brain</i> . Washington, DC: American Psychological Association. Wilson, R.A., & Frank, C., K (eds.) (1999). <i>Mit Encyclopedia of the Cognitive Sciences (Mitecs)</i> . MIT Press. Wittgenstein. "Philosophical Investigations." Chap. 6 in <i>Concepts: Core Readings</i> (edited by E. Margulis & S. Laurence. Cambridge, 1999, MA: MIT Press, 1999. (Excerpt)).		
8.2 Seminar / laboratory	Teaching methods	Remarks
Introduction and organizational remarks Keywords: Practical organisational aspects	Exposure, conversation	

<p>Evolutionary approaches in cognitive sciences</p> <p>Keywords: Cognitive sciences, Evolutions</p>	<p>Presentation, knowledge synthesis, conceptual clarification, group activities, guided discovery, practical activities</p>	
<p>Animal cognitions</p> <p>Keywords: Cognitive sciences, Animal cognitions</p>	<p>Presentation, knowledge synthesis, conceptual clarification, group activities, guided discovery, practical activities</p>	
<p>Embodied cognitions</p> <p>Keywords: Cognitive sciences, Emboding</p>	<p>Presentation, knowledge synthesis, conceptual clarification, group activities, guided discovery, practical activities</p>	
<p>Cognitive architectures: Classical computational vs. Neuroconnexionism</p> <p>Keywords: Cognitive sciences, Cognitive architectures</p>	<p>Presentation, knowledge synthesis, conceptual clarification, group activities, guided discovery, practical activities</p>	
<p>Cognitive architectures: ACR-R and beyond; EPIC and beyond; CAPS and beyond</p> <p>Keywords: Cognitive architecture, ACR-R, EPIC, CAPS</p>	<p>Presentation, knowledge synthesis, conceptual clarification, group activities, guided discovery, practical activities</p>	
<p>Cognitive architecture: LEABRA and beyond; CLARION and beyond</p> <p>Keywords: Cognitive architecture, LEABRA, CLARION</p>	<p>Presentation, knowledge synthesis, conceptual clarification, group activities, guided discovery, practical activities</p>	
<p>Learning and memory: Research paradigms in cognitive sciences</p> <p>Keywords: Learning & Memory, Research, Computation</p>	<p>Presentation, knowledge synthesis, conceptual clarification, group activities, guided discovery, practical activities</p>	
<p>Consciousness: Research paradigms in cognitive sciences</p>	<p>Presentation, knowledge synthesis, conceptual clarification, group activities,</p>	

Keywords: Consciousness, Research, Computation	guided discovery, practical activities	
Decision making & Problem solving: Research paradigms in cognitive sciences Keywords: Decision making & Problem Solving, Research, Computation	Presentation, knowledge synthesis, conceptual clarification, group activities, guided discovery, conversation	
Emotions: Research paradigms in cognitive sciences Keywords: Emotions, Research, Computation	Presentation, knowledge synthesis, conceptual clarification, group activities, guided discovery, conversation	
Psychopathology: Research paradigms in cognitive sciences Keywords: Psychopathology, Research, Computation	Presentation, knowledge synthesis, conceptual clarification, group activities, guided discovery, conversation	
Cognitive sciences: Broader implications Keywords: Research, Broader implications	Presentation, knowledge synthesis, conceptual clarification, group activities, guided discovery, conversation	
Summary seminar – putting it all together Keywords: synthesis, integration, recap	Knowledge synthesis, conceptual clarification, conversation	
<p>Mandatory references:</p> <p>Chipman, S. E. F. (ed.). (2017). <i>The Oxford handbook of cognitive science</i>. Oxford University Press.</p> <p>Keith Frankish and William Ramsey (eds.), (2012). <i>The Cambridge Handbook of Cognitive Science</i>, Cambridge University Press</p> <p>!!! Note: from the works mentioned above, only the chapters related to the topics taught in the course and seminar are mandatory. Specific (new/classical) articles/chapters might be suggested in advanced for each topic.</p> <p>Keating, D. P. (2011) (Ed.) <i>Nature and Nurture in Early Child Development</i>. New York, NY: Cambridge University Press.</p> <p>Johnson, M. H., & de Haan, M. (2015). <i>Developmental Cognitive Neuroscience: An Introduction</i>. (4th ed.). West Sussex, UK: Wiley Blackwell.</p>		

Posner, M. I., & Rothbart, M. K. (2007). *Educating the Human Brain*. Washington, DC: American Psychological Association.

Wilson, R.A., & Frank, C., K (eds.) (1999). *Mit Encyclopedia of the Cognitive Sciences (Mitecs)*. MIT Press.

Wittgenstein. "Philosophical Investigations." Chap. 6 in *Concepts: Core Readings* (edited by E. Margulis & S. Laurence. Cambridge, 1999, MA: MIT Press, 1999. (Excerpt)).

9. Corroborating the contents of the discipline with the expectations of the representatives of the epistemic community, professional associations and representative employers in the field related to the program

The proposed course and seminar topics are central topics in fundamental and applied research in the fields of cognitive sciences and their approach is based on the most recent results from the literature and consistent with other internationally relevant academic programs and key handbooks in the field. The course also offers state of the art research skills that are transferable to any scientific and applied field of knowledge.

10. Evaluation

Activity type	10.1 Evaluation criteria	10.2 evaluation methods	10.3 Weight in the final grade
10.4 Course		Written exam	60%
10.5 Seminar / laboratory		Research project	30%

10.6 Minimum performance standard

The final evaluation will be based on a written exam conducted in the session at the end of the second semester and of a research project.

The final grade consists of:

- a. score obtained in the written exam in proportion of 60% (maximum 6 points)
- b. research project 30% (up 3 points).

The simultaneous conditions for passing the Introduction to cognitive sciences exam are:

- a. a minimum of 2.5 points for the written exam out of the 6 maximum possible points
- b. a minimum 5 points from the final grade (combined score: project and exam)

Date of completion: 22.11.2021

Signature of the course holder



Date of approval in the department

Signature of the seminar holder



Signature of the department chair/director