

SYLLABUS

1. Program details

1.1 Higher education institution	West University of Timișoara
1.2 Faculty / Department	Faculty of Psychology and Educational Sciences
1.3 Department	Psychology
1.4 Field of study	Psychology
1.5 Cycle of studies	Bachelor's degree
1.6 Study program / Qualification	Psychology – Cognitive Science

2. Discipline details

2.1 Discipline name	Introduction to Cognitive Sciences						
2.2 Tenured teacher - course activities	Lecturer Adrian BRICIU, Ph.D.						
2.3 Tenured teacher – seminar/laboratory activities	Ionuț MLADIN, Ph.D.						
2.4 Study year	1	2.5 Semester	1	2.6 Type of assessment	E	2.7 Discipline regime	DO
2.5 Google Classroom code	r5vzceen						

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

3.1 Number of hours per semester	3	Of which: 3.2 course	2	3.3 seminar/laboratory	1
3.4 Total hours from the curriculum	42	Of which: 3.5 course	28	3.6 seminar/laboratory	14
Time fund distribution:					Hours
Study based on the textbook, course material, bibliography, and notes					20
Additional documentation in the library, on specialist electronic platforms / in the field					18
Preparing seminars/labs, homework, papers, portfolios, and essays					10
Tutoring					8
Examinations					2
Other activities					
3.7 Total hours of individual study	58				
3.8 Total hours per semester	100				
3.9 Number of credits (ECTS)	4				

4. Prerequisites (where necessary)

4.1 for curriculum	• None
4.2 for competencies	• None

5. Conditions (where necessary)

5.1 for conducting the course	<ul style="list-style-type: none"> • Google classroom • Mandatory presence: 50% (i.e. 7 meetings) • Video projector & audio system needed
5.2 for conducting the seminar/laboratory	<ul style="list-style-type: none"> • Google classroom • Mandatory presence: 70% (i.e. 5 meetings) • Video-projector & audio system needed

6. Discipline objectives - expected learning outcomes to which the discipline's study and promotion contributes

Knowledge	<ul style="list-style-type: none"> • Have the knowledge to understand and describe the main concepts, paradigms and methodologies used in psychological and cognitive science research and practice • Graduates can explain and interpret mental phenomena and processes by applying fundamental knowledge.
Skills	<ul style="list-style-type: none"> • Graduates will demonstrate the ability of analysis and interpretation of empirical data, of critical and constructive evaluation of one's own research and psychological assessment and specific to cognitive sciences; • Graduates will demonstrate the ability of construction and evaluation of relevant psychological indicators for research in the field of psychology and cognitive sciences; • Graduates will have the ability to describe and explain the main theoretical debates within cognitive science • Graduates will demonstrate the ability to describe some experimental methods and empirical approaches that cognitive scientists use to discover the inner workings of the mind.
Responsibility and autonomy	<ul style="list-style-type: none"> • Graduates will demonstrate that they can carry out professional duties responsibly, under conditions of restricted autonomy and qualified supervision • Graduates will demonstrate that they have the ability to identify their own learning sources and resources; • Graduates will demonstrate that they have the ability to reflect on the progress achieved in the learning process;

7. Contents

7.1 Course	Teaching methods	Observations
Organizational meeting	Discussion & presentation	Introductory discussion
Nuts and bolts of cognitive science: mental representations,	Interactive presentation, discussion and debate	Classnotes uploaded in the classroom Background: Bermudez (2024, chapter1)

computation, levels of explanations		
Universal cognitive traits or just WEIRD ones: what is a human universal?	Interactive presentation, discussion and debate	Classnotes uploaded in the classroom
Case study. Linguistic universals: are there any?	Interactive presentation, discussion and debate	Classnotes uploaded in the classroom Background Moro (2008, chap 2) and Everett (2013, chap 1)
The debate over mental modules and modularity	Interactive presentation, discussion and debate	Classnotes uploaded in the classroom Background: Bermudez (2024 chap 8)
Case study: language module(s)?	Interactive presentation, discussion and debate	Classnotes uploaded in the classroom Background: Moro (2008, chap3) and Smith & Tsimpli (1995 chap 2)
The debate over innateness	Interactive presentation, discussion and debate	Classnotes uploaded in the classroom Background: Samuels (2004) and Knobe & Samuels (2013)
Testing the innateness hypothesis: dishabituation experiments	Interactive presentation, discussion and debate	Classnotes uploaded in the classroom Background: Bermudez 2024 chap 11
Innateness and poverty of the stimulus: empirical data and its interpretation	Interactive presentation, discussion and debate	Classnotes uploaded in the classroom Background: Adger (2019, cap3) and Berwick et al (2011)
Adaptive and non-adaptive arguments in cognitive sciences	Interactive presentation, discussion and debate	Classnotes uploaded in the classroom Background: Lloyd and Gould (2017), Gould & Lewontin (1979)
Case study. Language: adaptive or not?	Interactive presentation, discussion and debate	Classnotes uploaded in the classroom Background: Hauser, Chomsky & Fitch (2002)
Cognition and Consciousness: the hard problem	Interactive presentation, discussion and debate	Classnotes uploaded in the classroom Prinz 2012 chaps 1&2
Theories of Consciousness	Interactive presentation, discussion and debate	Classnotes uploaded in the classroom Prinz 2012 chaps 1&2
Summary	Discussion & debate	Discussion
Main textbook: Bermudez, Jose Luis (2024) <i>Cognitive Science: An introduction to the science of mind</i> , (4 th edition), Cambridge University Press - a paper copy can be found at BCUT . A view-only electronic copy is available via googleclassroom.		

At the end of each class presentation, you can find a detailed bibliography on the subject.

Other good general introductions in cognitive science

Stainton, Robert J. (ed.) (2006). *Contemporary Debates in Cognitive Science*. Malden MA: Blackwell.

Gleitman L., Liberman M. (eds) (1996) *Invitation to cognitive science. Vol. 1-3*. Cambridge: MIT Press; 1996.

Additional resources for further study

Cognitive universals

Brown, D. (1991). *Human universals*. Philadelphia, Temple University Press.

Pinker, S (2002) *The Blank Slate: The Modern Denial of Human Nature*, Penguin (chapter 1 & appendix)

Henrich, J., Heine, S., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences*, 33(2-3), 61-83.

Levinson, S. C. (2003) *Space in language and cognition*. Cambridge University Press (chap 1-3)

Levinson, S.C. (2012), The Original Sin of Cognitive Science. *Topics in Cognitive Science*, 4: 396-403

Li, P. & Gleitman, L. (2002) Turning the tables: Language and spatial reasoning. *Cognition* 83:265–94.

Cashdan, E. (2013) What is a Human Universal? Human Behavioral Ecology and Human Nature in Downes S. and Machery E. (eds.) *Arguing about Human Nature*. London, Routledge

Gordon, P. (2004) Numerical cognition without words: Evidence from Amazonia. *Science* 306(5695):496–99.

Davidoff, J., Davies, I. & Roberson, D. (1999) Colour categories in a stone-age tribe. *Nature* 398, 203–204

Prinz, J. (2012) *Beyond Human Nature: How Culture and Experience Shape the Human Mind*. W.W. Norton. (chap 2)

Everett, Caleb (2013) *Linguistic Relativity: Evidence across Languages and Cognitive Domains*, De Gruyter, Berlin (chapters 1-3)

Modularity

Fodor, Jerry A. (1983). *The Modularity of Mind*. Cambridge, MA: MIT Press.

Prinz, J. (2006). Is the mind really modular? In R. Stainton (Ed.), *Contemporary debates in cognitive science*. Malden, MA: Wiley-Blackwell.

Clarke, Sam (2021). Cognitive penetration and informational encapsulation: Have we been failing the module? *Philosophical Studies* 178 (8):2599-2620.

Pinker, Steven (1997). *How the Mind Works*. Norton.

Smith, N., and Tsimpli, I.-M. (1995), *The Mind of a Savant*, Blackwell, Oxford

Smith, N et al .(2010). *The signs of a savant*, Blackwell, Oxford

Pallier, C et al .(2011), Cortical representation of the constituent structure of sentences , *PNAS*, VOL 108, NO 6

Spunt, R, & Adopphs, R (2017) A new look at domain specificity: insights from social neuroscience, *Nature Reviews Neuroscience*, 18, 559-67

Margolis, Eric & Laurence, Stephen (2023). Making sense of domain specificity. *Cognition* 240 (C):105583.

Innateness

Knobe, Joshua & Samuels, Richard (2013). Thinking like a scientist: Innateness as a case study. *Cognition* 126 (1):72-86.

Samuels, Richard (2004). Innateness in cognitive science. *Trends in Cognitive Sciences* 8 (3):136-141

Spelke, Elisabeth (2022) *What babies know: Core Knowledge and Composition, Vol 1*, Oxford University Press

Margoni, F., Surian, L., & Baillargeon, R. (2024). The violation-of-expectation paradigm: A conceptual overview. *Psychological Review*, 131(3), 716–748.

Newport, E. & Gleitman, L. (2002). The invention of language by children: Environmental and biological influences. In Daniel Levitin (ed.), *Foundations of Cognitive Psychology: Core Readings*. MIT Press. pp. 685—704

Berwick, Robert C. et al (2011). Poverty of the Stimulus Revisited. *Cognitive Science* 35 (7):1207-1242

Margolis, Eric & Laurence, Stephen (2013). In defense of nativism. *Philosophical Studies* 165 (2):693-718.

Carruthers, Peter ; Laurence, Stephen & Stich, Stephen P. (eds.) (2007). *The Innate Mind: Vol 1-3* New York, US: Oxford University Press USA.

Margolis, Eric & Laurence, Stephen (2024). Concepts, core knowledge, and the rationalism–empiricism debate. *Behavioral and Brain Sciences* 47:e137.

Spelke, Elisabeth & Kinzler, Katherine (2007) Core Knowledge, *Developmental Science* 10:1 (2007), pp 89–96

Spelke Elisabeth (1998) Nativism, empiricism and the origin of knowledge, *Infant Behavior and Development* (2), pp 181-200

Evolutionary arguments in cognitive science

Cosmides, Linda & Tooby, John (1992) *Evolutionary Psychology: A primer*, Center for Evolutionary Psychology, UC Santa Barbara

Chomsky Noam, *What Kind of Creatures Are We?* Columbia University Press, New York, 2016

Moro, Andrea (2008) *The Boundaries of Babel: The Brain and the Enigma of Impossible Languages*. MIT Press. 2008

Gould, Stephen Jay & Lewontin, Richard C. (1979) „The Spandrels of Marco Polo and the Panglossian Paradigm: A critique of the Adaptionist Programme” *Proceedings of the Royal Society London, B* 205, 581-598

Pinker, Steven & Bloom, Paul (1990). Natural language and natural selection. *Behavioral and Brain Sciences* 13 (4):707-27.

D. Hauser, Noam Chomsky, W. Tecumesh Fitch, (2002) The Faculty of Language: What is it, Who Has it, and How did it Evolve? in *Science*, vol 298

Lloyd, A. Elisabeth. & Gould, Stephen (2017). Exaptation Revisited. *Biological Theory* 12 (1):50-65.

Hauser MD, Yang C, Berwick RC, Tattersall I, Ryan MJ, Watumull J, Chomsky N and Lewontin RC (2014) 'The mystery of language evolution'. *Front. Psychol.* 5:401.

Cognitive science and theories of consciousness

Prinz, Jesse (2012). *The Conscious Brain: How Attention Engenders Experience.* , US: Oup Usa.

Block, Ned (1995). On a confusion about a function of consciousness. *Brain and Behavioral Sciences* 18 (2):227—247.

Block, Ned (2005). Two neural correlates of consciousness. *Trends in Cognitive Sciences* 9 (2):46-52.

Chalmers, David John (2010). *The character of consciousness.* New York: Oxford University Press.

7.2 Seminar	Teaching methods	Observations*
1. Introduction: overview of basic concepts, tools and main research programs	Presentation, debate, suggested discussion questions, exercises and quizzes	To read: Bermudez (2024 chapter 1)
2. Cognitive Universals	Presentation, debate, suggested discussion questions, exercises and quizzes	To read: Boroditsky (2011) & Brown (2004)
3. Mental Modules	Presentation, debate, suggested discussion questions, exercises and quizzes	To read Bermudez (2024, chaps 8.1 – 8.4 and 13.1-13.3)
4. Innateness	Presentation, debate, suggested discussion questions, exercises and quizzes	To read: Bermudez 2024 chaps 11.1 and 11.2 and Samuels (2004)
5. Dishabituation experiments and their interpretation	Presentation, debate, suggested discussion questions, exercises and quizzes	To read: Baillargeon (2008)
6. Adaptive and non-adaptive explanations of cognition	Presentation, debate, suggested discussion questions, exercises and quizzes	To read: Bermudez 2024 chap 4 & Cosmides and Tooby (1992, pp 1-24)
7. The cognitive science of consciousness	Presentation, debate, suggested discussion questions, exercises and quizzes	To read Bermudez chap 15
Observations:		

1. at least one seminar meeting (**to be announced beforehand**) students will use AI as a way of reviewing the class material. The exact ways in which AI will be used will be communicated as we progress, but they will include the following: **a.** summarizing a key theory/hypothesis while students must evaluate and review the summary, **b.** proposing new experimental design for a given hypothesis while students will discuss and evaluate the proposal; **c.** find published peer reviewed literature on a very narrow issue relevant to the subject of the seminar.
2. For each seminar students will be provided with a set of review and discussion questions.

References:

Our main textbook is:

Bermudez, Jose Luis (2024) *Cognitive Science: An introduction to the science of mind*, (4th edition), Cambridge University Press – a paper copy can be found at **BCUT**. A view-only electronic copy is available via googleclassroom.

We will also read several other papers as we go by:

Boroditsky, Lera (2011) How language shapes thought, *Scientific American*, Feb 2011

Brown, Donald. E. (2004), Human Universals, Human Nature & Human Culture in *Daedalus*, fall 2004

Samuels, Richard (2004). Innateness in cognitive science. *Trends in Cognitive Sciences* 8 (3):136-141.

Baillargeon R. (2008). Innate Ideas Revisited: For a Principle of Persistence in Infants' Physical Reasoning. *Perspectives on psychological science : a journal of the Association for Psychological Science*, 3(1), 2–13. <https://doi.org/10.1111/j.1745-6916.2008.00056.x>

Cosmides, Linda & Tooby, John (1992) *Evolutionary Psychology: A Primer*, Center for Evolutionary Psychology, UC Santa Barbara.

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

This course develops professional skills relevant both to practicing cognitive science and to other occupations that involve cognitive science. Also, the content of the course correlates closely with introductory courses in cognitive science offered elsewhere as well as with the topics presented in major handbooks and monographies in the discipline.

9. Assessment

Activity type	9.1 Assessment criteria	9.2 Assessment methods	9.3 Weight of final mark
9.4 Course	Written exam	Written exam: multiple choice exam supplemented with open review questions	50%
9.5 Seminar / laboratory	Written assignments & class participation	(1) Mid-term exam: multiple choice exam supplemented with open review questions 40% final grade	50 %

		(2) Reading assignments and class participation. Everyone is expected to come to class prepared to discuss the assigned material and suggested questions and to contribute to the group learning process. 10% final grade	
9.6 Re-taking the final exam		Same requests as in 9.4	
9.6 Minimum performance standard			
<ul style="list-style-type: none"> The final grade obtained must be at least 5 (five) to pass this course Admission in the final exam is conditioned on passing the midterm exam. Students who do not pass the mid-term test will have to do remedial work in session B: they will receive an extra batch of multiple-choice questions and review questions that they will need to answer. If students fail the mandatory attendance (according to UVT regulations), they cannot take part in the exam in session A but only in session B. 			
There are no supplementary conditions for re-enrolling.			

Date of completion:
16.09.2025

Tenure teacher:
Adrian BRICIU, PhD
Lecturer

Date of approval in the department

Head of Department:
Delia VÎRGĂ, PhD
Professor