

DOCTORAL STUDIES COURSE UNIT DESCRIPTION

Name of subject	Field of science, code	Faculty / Center	Institute / Department
Development and Fundamental Problems of Cognitive Sciences	H 001	Faculty of Philosophy	Institute of Philosophy
Student's workload	Credits	Student's workload	Credits
Lectures		Consultations	1
Independent study	4	Seminars	

Course annotation

Development of cognitive sciences. Prehistory of cognitive sciences. Critique of behaviourism in psychology: learning without encouragement, cognitive maps, plans and complex behaviours, first models of information processing. Early research on artificial intelligence: algorithm, computation, Turing machines. Critique of behaviourism in linguistics: a formal analysis of language. The emergence of cognitive sciences. The first models of natural language processing, imagery debate, computational, algorithmic, and implementation levels of analyses. Mental representations. Turning towards neurology: neural network models, PET, fMRI technologies. New challenges: the problem of consciousness, dynamic systems, experimental philosophy.

Basic problems of cognitive sciences. The problem of integration: local and global integration, inter-theoretical reduction, levels of interpretation, mental architecture. Controversy over common information processing models: symbolic, connectionist, and dynamic information processing models. The problem of mental architecture: the hypothesis of mass modularity. The evolution of cognition. Frame problem, embodied and contextual cognition. Culture and cognition. The problem of consciousness: reductive and anti-reductive arguments. Predictive coding in perception and cognition. Assessment requirements are related to the topic of the dissertation and are determined individually.

Reading list

Basic literature

1. Chalmers, D. J. 1996. *The Conscious Mind*. Oxford: Oxford University Press.
2. Chomsky, N. 1957. *Syntactic Structures*. The Hague: Mouton.
3. Churchland, P. S. 1986. *Neurophilosophy*. Cambridge, MA: MIT Press.
4. Clark, A. 1997. *Being There*. Cambridge, MA: MIT Press.
5. Dreyfus, H. L. 1972. *What Computers Can't Do*. New York: MIT Press.
6. Fodor, J. 1983. *The Modularity of Mind*. Cambridge, MA: MIT Press.
7. Fodor, J. 1975. *Language of Thought*. Cambridge, MA: Harvard University Press.
8. Marr, D. 1982. *Vision*. San Francisco: W. H. Freeman.
9. Port, R. F.; Van Gelder, T., eds. 1995. *Mind as Motion*. Cambridge, MA: MIT Press.
10. Rumelhart, D. E.; McClelland, J. L. and the PDP Research Group. 1986. *Parallel Distributed Processing*. Cambridge, MA: MIT Press.

Additional literature

1. Bermúdez, J. L. 2014. *Cognitive Science*. Cambridge: Cambridge University Press.
2. Carruthers, P. 2011. *The Opacity of the Mind*. Oxford: Oxford University Press.
3. Carruthers, P.; Laurence, S.; Stich, S., eds. 2005-7. *The Innate Mind*, Vol. 1-3. Oxford: Oxford University Press.
4. Churchland, P. M. 2007. *Neurophilosophy at Work*. Cambridge: Cambridge University Press.
5. Damasio, A. 2010. *Self Comes to Mind*. New York: Pantheon Books.
6. Gallagher, S.; Schmicking, D., eds. 2010. *Handbook of Phenomenology and Cognitive Science*. Dordrecht:

Springer.
7. Kahneman, D. 2011. <i>Thinking, Fast and Slow</i> . New York: Farrar, Straus, and Giroux.
8. Knobe, J.; Nichols, S., eds. 2008. <i>Experimental Philosophy</i> . Oxford: Oxford University Press.
9. Margolis, M.; Samuels, R.; Stich, S., eds. 2012. <i>The Oxford Handbook of Philosophy of Cognitive Science</i> . Oxford: Oxford University Press.
10. Stainton, J., ed. 2006. <i>Contemporary Debates in Cognitive Science</i> . Oxford: Blackwell.

The names of consulting teachers	Science degree	Main scientific works published in a scientific field in last 5 year period
Jonas Dagys	Dr.	Berniūnas, R., Dagys, J., Dranseika, V., (2017). „Proper names, rigid designation, and empirical studies on personal identity“ // <i>Topoi</i>. An International Review of Philosophy. ISSN: 0167-7411. Dagys, J., (2014). „Pastabos apie neverbalinio kontinuumo idėją“ // <i>Problemos 2014 Priedas</i>, p. 18-28. (Thomson Reuters Web of Science Arts & Humanities Citation Index) Dagys, J., Dranseika, V., Grenda, V., Vasilionytė, I., „Reduktyvizmo raiška šiuolaikinėje analitinėje filosofijoje“. - <i>Problemos</i>, Nr. 85, Vilnius, 2014, p. 141-152. Dagys, J., „Šiuolaikinė psichofizinio reduktvizmo ir antireduktvizmo polemika ir jos metodologinės išdavas“. - <i>Problemos, priedas</i>, Vilnius, 2012, p. 22-36. Dagys, J., "Putnamian anti-envattor ver. 3.00: new features - same results". - <i>Problemos</i>, Nr. 77, Vilnius, 2010, p. 39-48.
Paulius Rimkevičius	Dr.	Rimkevičius, P. (2021). Mental imagery and the illusion of conscious will. <i>Synthese</i>, 199(1-2), 4581-4600. doi:10.1007/s11229-020-02992-7 Berniūnas, R., Beinorius, A., Dranseika, V., Silius, V., & Rimkevičius, P. (2021). The weirdness of belief in free will. <i>Consciousness and cognition</i>, 87, 1-15. doi:10.1016/j.concog.2020.103054 Berniūnas, R., Rimkevičius, P., Beinorius, A., Dranseika, V., & Silius, V. (2024). Being prosocial and happy, and believing in life-determining forces across cultures. <i>Journal of cultural cognitive science</i>, 8, 31-45. doi:10.1007/s41809-023-00139-x Berniūnas, R., Beinorius, A., Dranseika, V., Silius, V., & Rimkevičius, P. (2023). Bound to share or not to care. the force of fate, gods, luck, chance and choice across cultures. <i>Journal of cognition and culture</i>, 23(3-4), 451-475. doi:10.1163/15685373-12340172 Rimkevičius, P. (2020). The interpretive-sensory access theory of self-knowledge: empirical adequacy and scientific fruitfulness. <i>Problemos</i>, 97, 150-163. doi:10.15388/Problemos.97.12
Marius Povilas Šaulauskas	Prof.	„Revizionistinis konstruktyviojo empirizmo normatyvumas“ (kartu su J. Bujoku). - <i>Problemos</i>, Nr. 83, Vilnius, 2014, p. 48-61; „Heideggerio bylos“ byla: filosofijos silpnatvė ir stiprybė“ (kartu su L. Adomaičiu). - <i>Sociologija. Mintis ir veiksmai</i>, nr. 1 (34). Vilnius: VU ir KU, 2015, p. 5-15; „Frege's Bedeutung kaip reikšmė ir kaip nurodymas“ (kartu su A. Plėšniu). - <i>Problemos</i>, Nr. 91, Vilnius, 2017, p. 29-43;

		„Ecological citizenship: habitus of care in the public sphere“ (kartu su A. Bartkiene, R. Bikauskaite). - Problemos. Vilniaus universiteto leidykla, 2018, t. 93, p. 129-141; „Rethinking Ecological Citizenship“ (kartu su A. Bartkiene, R. Bikauskaite, D. Mincyte). - Vilnius, Lithuania: Vilnius University Press, 2019.
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Certified during Doctoral Committee session on 2019-10-22. Protocol No. 250000-KI-41

Committee Chairman prof. Marius Povilas Šaulauskas