POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

COURSE DESCRIPTION CARD - SYLLABUS

Course name
Introduction to cognitive science

Course

Field of study	Year/Semester
Artificial Intelligence	1/2
Area of study (specialization)	Profile of study
Computing	general academic
Level of study	Course offered in
Second-cycle studies	English
Form of study	Requirements
full-time	elective

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
16		
Tutorials	Projects/seminars	
16		

Number of credit points

3

Lecturers

Responsible for the course/lecturer:

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Faculty of Engineering Management

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Responsible for the course/lecturer:

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Prerequisites

Student has engineering abilities and teamwork skills. Student is capable to summarise the most important information from scientific and research references.

Course objective

The objective of the course is to introduce the actual knowledge about the mind and attempt to understand the human whit the reference the various sources and fields of knowledge.

Course-related learning outcomes

Knowledge

Student has knowledge about the cognitive processing and its impact on the economic enviroment, including business activities [K2st_W8] [K2st_W9].

Skills

Student has ability to apply the approaches, such as: phrenology, introspection, artificial intelligence, empirical theory of mind to describe the cognitive processing and to use the information and communication techniques applied during the Information Technology projects.

Student has ability to comunicate using the different techniques in professional and others enviroments [K2st_U11].

Student has ablility to apply the knowledge form modeling the performance of enviroment with the application of SI [K2st_U11] [K2st_U9].

Social competences

Student knows and apply in social life the main standards and values. Studant cooperates with team. Student realizes tasks with engagement and on target [K2st_K4] [K2st_K2].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: maxiumum score is 100 points (50 points for essay, 50 points for written assignment).

Tutorial: maxiumum score is 100 points (teamwork in preparation and participation in Oxford debate - 80 points, summary and reasoning - 20 points).

Marks: 2.0 – from 50 points, 3.0 – from 51 to 60 points, 3.5 – from 61 to 70 points, 4.0 – from 71 to 80 points, 4.5 – from 81 to 90 points, 5.0 – from 91 to 100 points.

Programme content

Introduction to the issue of cognitive science.

The concept of two systems in the act of human mind.

Heuristics and cognitive bias, i.e., judgements in uncertain conditions.

The intuition in experts evaluations.

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The approach to risk in decision making processes.

The elements of framming effect in realation to cognitive processing.

Teaching methods

Lecture, presentation, discussion, teamwork, Oxford debate.

Bibliography

Basic

Kahneman, D. (2012). Thinking, Fast and Slow, Penguin Books.

Additional

Kahneman, D., Slovic, S. P., Slovic, P., & Tversky, A. (Eds.). (1982). Judgment under uncertainty: Heuristics and biases. Cambridge university press.

Kahneman, D., & Tversky, A. (2013). Prospect theory: An analysis of decision under risk. In Handbook of the fundamentals of financial decision making: Part I (pp. 99-127).

Levin, M., & Hayes, S. C. (2009). ACT, RFT, and contextual behavioral science.

Klawiter, A. (2008). Formy aktywności umysłu. Ujęcia kognitywistyczne. Emocje, percepcja, świadomość, 1.

Magrini, M. (2019). Mózg. Podręcznik użytkownika.

Ohme, R. (2017). Emo sapiens: harmonia emocji i rozumu. Wydawnictwo Bukowy Las.

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,0
Classes requiring direct contact with the teacher	32	1,5
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) [1]	43	1,5

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[1] delete or add other activities as appropriate