**COURSE DESCRIPTION CARD - SYLLABUS**

Course name   
Introduction to cognitive science       
**Course**

Field of study  
Artificial Intelligence  
Area of study (specialization)  
Computing  
Level of study   
  
Form of study  
  
Year/Semester  
1/2  
Profile of study   
  
Course offered in  
english  
Requirements

**Number of hours**

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

**Number of credit points**3

**Lecturers**

Responsible for the course/lecturer:  
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PhD Eng. Joanna Majchrzak

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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.

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 | 70 | 3,0 |
| Classes requiring direct contact with the teacher | 35 | 1,5 |
| Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) [[1]](#footnote-1) | 40 | 1,5 |

1. delete or add other activities as appropriate [↑](#footnote-ref-1)