

COURSE DESCRIPTION (GENERAL DESCRIPTION)

Title of the course: Motor cognition

Course code: PSYM21-CD-104

Head of the course: Király Ildikó

Aim of the course:

The goal of this course is to give knowledge of motor control, the relationship between motor and cognitive abilities, the effect of physical activity on cognition and embodied cognition approach. The purpose is also to make students able to use their knowledge both from a theoretical and a practical point of view.

Learning outcome, competences

knowledge:

- Fundamental concepts of motor control, physical activity and cognitive psychology
- Relationship between motor control, physical activity and cognition

attitude:

- Can critically interpret empirical data and theoretical models related to the topic
- Can analyze the topic from a practical point of view

skills:

- Have an insight into the relationship between physical activity and cognition
- Can understand and interpret the related literature

autonomy, responsibility:

- Implementation of knowledge and skills in accordance with ethical standards.

Content of the course

Topic of the course

- Motor control
- Relationship between motor and cognitive abilities
- Effect of physical activity on cognition
- Embodied cognition approach

Learning activities, learning methods

- Discussing empirical research and theoretical models related to the topic
- Interactive disputation of the topics

Evaluation of outcome

Learning requirements, mode of evaluation and criteria of evaluation:

- active attendance
- presenting an analysis of the chosen topic/article

Mode of evaluation: exam mark

- 5-point grading scale

Criteria of evaluation:

- lexical knowledge
- ability to interpret, connect and use knowledge related to the topic

Reading list

Compulsory reading list

- Raichlen, D. A., & Alexander, G. E. (2017). Adaptive capacity: an evolutionary neuroscience model linking exercise, cognition, and brain health. *Trends in neurosciences*, 40(7), 408-421.
- Moreau, D., Morrison, A. B., & Conway, A. R. (2015). An ecological approach to cognitive enhancement: complex motor training. *Acta psychologica*, 157, 44-55.
- Leitan, N. D., & Chaffey, L. (2014). Embodied cognition and its applications: A brief review. *Sensoria: A Journal of Mind, Brain & Culture*, 10(1), 3-10.

Recommended reading list

- Carlstedt, R. (Ed.). (2018). *Handbook of sport neuroscience and psychophysiology*. Routledge.
- Masters, R. S., Papineau, D., Shapiro, L. A., Spaulding, S., Hutto, D. D., Kirchoff, M. D., ... & Esposito, A. (2019) *Handbook of embodied cognition and sport psychology*. MIT Press.