APPLIED COGNITIVE PSYCHOLOGY LAB

(1) GENERAL

SCHOOL	SCHOOL OF SOCIAL SCIENCES		
ACADEMIC UNIT	DEPARTMENT OF PSYCHOLOGY		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	Ψ4107	**SEMESTER**	6th
	Applied Cognitive Psychology Lab		
COURSE INSTRUCTOR	Dr Elias Tsakanikos		

INDEPENDENT TEACHING ACTIVITIES	WEEKLY TEACHING HOURS	CREDITS
Workshops, practical training in research design and methodology, laboratory exercises	3	6

COURSE TYPE:	Skills Development (Lab)
PREREQUISITE COURSES:	Research Methods; Statistics I & II
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES
COURSE WEBSITE (URL)	

(2) LEARNING OUTCOMES

Learning outcomes

Applied Cognitive Psychology involves experimental investigation of memory, learning, thinking, problem solving, language, and consciousness as they occur in real-world contexts. It is also devoted to studies of human performance and basic cognitive skills in everyday environments. Particular emphasis include research *autobiographical memory*, *lifespan memory development*, detecting *truth and deception*, *eyewitness memory* and *memory reliability*, as well as cognitive perspectives o*n consumer behaviour*, *health and education.* The lab provides the opportunity to students to design under supervision an original research study within the area of Applied Cognitive Psychology (full research protocol, including study materials) as if they were to submit this to the university Research Ethics Committee.

By the end of this workshop students are expected to:

- Be able to design an original experimental study to investigated cognitive processes occurring in real-world settings.
- Acquire an in-depth understanding of how human performance can be explained by various cognitive processes through different experimental designs.
- Demonstrate a critical understanding of limitations of different experimental paradigms in applied cognitive psychology research.
- Develop awareness of the interplay between methodological and ethical issues when investigating cognitive processes in everyday environments.
- Be able to modify, adapt or create novel experimental study material.
- Be able to reflect on group work and decision-making processes.

General Competences

- Awareness of ethical issues.
- Decision-making.
- Team working.
- Using feedback from research supervision constructively.
- Project planning and management.
- Creativity: making novel links between basic and applied research.

(3) SYLLABUS

- **Workshops** on conceptual and methodological issues in Applied Cognitive Psychology:

  -- Similarities and differences between basic and applied research

  -- Factors determining the success of application efforts

  -- Perceptual errors and accidents

  -- Memory metaphors in cognitive psychology

  -- Information processing approaches of human performance: internet,
     social media, robotics and automation

  -- Memory metaphors in cognitive psychology

  -- Cognitive perspectives on consumer behaviour, health and education

- **Experimental paradigms** in Applied Cognitive Psychology:

  -- Response inhibition tasks

  -- Case scenarios techniques

  -- Eyewitness testimony transcripts

  -- Reality monitoring/Source monitoring tasks

  -- Cue utilization methods

  -- Cognitive load /dual tasks

- **Workshops in experimental research design**: hypothesis testing in real-life settings; factorial designs; randomization; participant identification; confounding variables in real-world contexts; order effects; validity and reliability measures; ecological validity; ethics

- **Group exercises** in creating novel experimental stimuli and apparatus. Adapting and modifying stimuli and apparatus in native language (Greek).

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY.	Face-to-face		
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	Use of ICT in teaching. Use of e-class for the support of teaching and the achievement of learning outcomes, and for communicating with students.		
TEACHING METHODS	Teaching methods	Workload	ECTS Credits
	Lectures/meetings	39 hours, (13 meetings x 3 h)	1,56
	Written report preparation	45 hours	1,80
	Homework	38 hours	1,52
	Preparation for the oral (in-class) presentation	16 hours	0,64
	Total	138 hours	6
STUDENT PERFORMANCE EVALUATION	a. Team written Research Protocol (10000 -15000 words; 60% of the final grade). b. Oral in-class presentation, participation in workshop discussions and activities (30% of the final grade). c. Reflective report on group work process (1000-1500 words; 10% of the final grade)		

(5) ATTACHED BIBLIOGRAPHY

Bobak, A. K., Hancock, P. J. B. & Bate, S. (2016). Super-recognisers in action: evidence from face-matching and face memory tasks. *Applied Cognitive Psychology*, 30: 81– 91. doi: 10.1002/acp.3170.

Billieux, J., Van der Linden, M. & Rochat, L. (2008). The role of impulsivity in actual and problematic use of the mobile phone. *Applied Cognitive Psychology,* 22, 1195 1210. https://doi.org/10.1002/acp.1429

Eitel, A., Bender, L., & Renkl, A. (2019). Are seductive details seductive only when you think they are relevant? An experimental test of the moderating role of perceived relevance. *Applied Cognitive Psychology,* 33, 20– 30. https://doi.org/10.1002/acp.3479

Lobato, E., Mendoza, J., Sims, V. & Chin, M. (2014). Examining the relationship between conspiracy theories, paranormal beliefs, and pseudoscience acceptance among a university population. *Applied Cognitive Psychology*, 28, 617– 625. doi: 10.1002/acp.3042

Margolin, S.J., Driscoll, C., Toland, M.J. & Kegler, J.L. (2013). E-readers, computer screens, or paper: does reading comprehension change across media platforms? *Applied Cognitive Psychology*, 27, 512-519. https://doi.org/10.1002/acp.2930

Mac Giolla, E. & Luke, T.J. (2021). Does the cognitive approach to lie detection improve the accuracy of human observers? *Applied Cognitive Psychology,* 35, 385– 392. https://doi.org/10.1002/acp.3777