Ph.D Course 2023

Department of Pedagogy, Psychological Sciences and Philosophy
University of Cagliari

Title: *Psychology, Logic, and Individual/Social Decision-Making*
Professor: Oriana Mosca
Hours: 21 Hours.

- **Chronogram:** 29.05.23 (10-13), 30.05.23 (10-13), 05.06.23 (10-13, 15-18), 06.06.23 (10-13, 15-18), 24.07.23 (10-13).
- **Modality:** presence
- **Language:** English or/and Italian.
- **Evaluation**: Monographic work.
- **Preliminary knowledge:** This course does not come with mandatory requirements in terms of prior knowledge and skills. The course is open to both students who are completely unfamiliar with the cognitive and decision sciences as well as to students who have had ample prior exposure to corresponding research.
- **Contact**: oriana.mosca@unica.it - hfreytes@gmail.com

Short description and program: Suitable for Ph.D students in Psychology, Pedagogy, and Philosophy, the course aims to establish a comparative study regarding the information and inference in psychology and logic. A historical/epistemological perspective about the mentioned topic is treated. Professor Hector Freytes, member of the Department of Pedagogy, Psychological Sciences, and Philosophy, will participate in the course.

Part 1: Psychology and decision-making: heuristics
1. *Cognitive Biases*
2. *Homo heuristicus: why biased minds make better inferences*
3. *Models of Bounded Rationality*
4. *Models of Ecological Rationality*
5. *Social heuristics*

Part 2: Logic and inference
1. *Formal languages, syntax and semantic*
2. *Propositional language*
3. *Propositional Semantic and truth tables*
4. *Logical inference*
5. *Some Topics: 1st order logic.*

6. *Part 3: Psychology Logic and language*
7. *Psychologism and logic.*
8. *The* correspondence *theory of* truth
9. *Sense and denotation (G. Frege)*
10. *Applications of heuristical decision making*
11. *Social Dilemmas*

Bibliography

[1] Cherubini P., Giaretta P., Mazzocco A. Ragionamento: Psicologia e Logica, Manuali e Monografie di psicologia, Giunti, 2004

[2] Fitting M., First-Order Logic and Automated Theorem Proving, Springer-Verlag New York, 2nd edition 2012.

[3] Hierro Pescador, J., Principios de filosofia del lenguaje, Alianza Editorial, Madrid 1989.

[4] Gigerenzer, G., Hertwig, R., Pachur, T. Heuristics. The Foundations of Adaptive Behavior, 2011.