

*Title and Code of Course:* Logics of the Social Sciences ERPB-MTVN 9004

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Credit Point Value: <b>6</b>	Number of Lessons per Week: <b>2</b>	Type of Course: <b>Seminar</b> <input checked="" type="checkbox"/> <b>Lecture</b> <input checked="" type="checkbox"/>	Method of Evaluation: <b>Oral Examination</b> <input type="checkbox"/> <b>In-Class Presentation</b> <input checked="" type="checkbox"/> <b>Other</b> <input type="checkbox"/>
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**Course Description:**

This course offers a tender introduction into four different logics successfully applied within the social sciences: Classical First Order Logic, what in the last 25 years has turned out to be an unavoidable tool for clarifying concepts and argumentation; Modal Logics what has an amazing width of applications ranging from modelling decision making processes under the conditions of bounded rationality to the emergence of prejudice; Dynamic Logics, that allows for modelling argumentation within theories that are still in flux; and Bayesian Probabilistic models of cognitive processes, and the avenues of research opened up due to these models.

The course is organized into four three week long modules covering these topics. No knowledge of logic(s) is presupposed, but some might turn out to be useful. The ability and willingness to think a bit abstractly might offer an alternative route.

## **Bibliography:**

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3. Péli G:  
The Niche Hiker's Guide to Population Ecology:  
A logical reconstruction of organization ecology's niche theory,  
SOCIOLOGICAL METHODOLOGY 27: (1) pp. 1-46.

1. Z. Huang, M. Masuch, and L. Pólos.:  
A Preference Logic for Rational Actions.” In: Blanning and King(eds) *Artificial Intelligence in Organizational Design*. 1996.

2. L. Pólos. Hannan M. T. :Modalities in Sociological Arguments  
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3. [Greta Hsu, Michael T. Hannan & László Pólos](#)  
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1. F. Veltman:  
Defaults in Update Semantics  
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2. László Pólos, Michael T. Hannan:  
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3. Hannan, M.T., Pólos L., Carroll, G.R.  
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Columbia University Press (2019)