Modal logic

2025 Spring

Kód: BMA-LOTD-326.05, BMI-LOTD-326E.05
Title: Modal logic
Lecturer: Molnár Zalán

Content of the course: This course is an introduction to the filed of modal logics. We cover basic model theoretical techniques applied in these systems (generated substructures, p-morphisms, bisimulation, ultrafilter extension, etc.), correspondance theory (first-and second-order correspondents, standard translation), completeness and in-completeness results of modal logics for frame semantics, algebraic semantics and general completeness results, also we take a look into selected applications (e.g. temporal logic, dynamic epistemic logic).

Grading criteria, specific requirements:
Grading is based on homeworks

Required reading:
• Blackburn, P., Rijke, M., Venema Y. *Modal logic.* Cambridge University Press, 2002.
• Chagrov, A., Zakharyaschev M. *Modal logic.* Clarendon Press, Oxford, 1997.
• Lecture notes