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| Code of course: **BMI-LOTD-329E.04, BMA-LOTD-329.04** |
| Title of course: **Algebraic Provability Logic** |
| Lecturer: **Övge Öztürk** |
| **General aim of the course:** Getting familiar with the concept of provability, fixed points theorems, modal completeness and compactness, algebraization, Provability logic and Magari algebras  **Content of the course:** Basics of Universal Algebraic Logic, Introduction to Modal Logic, Provability Logic, Magari Algebras, Algebraic Semantics, Algebraization, Compactness Characterization  **Grading criteria, specific requirements:** Weekly assignments  **Required reading:** Boolos, G. (1994). The Logic of Provability. Cambridge: Cambridge University Press. doi:10.1017/CBO9780511625183  **Suggested further reading:**  Andreka, H., Nemeti, I. and Sain, I., Algebraic Logic. In: Handbook of Philosophical Logic Vol.II, 2nd Edition. Editors: D. M. Gabbay and F.Guenthner. Kluwer Academic Publishers, 2001.  Artemov S.N., Beklemishev L.D., Provability Logic. In: Handbook of Philosophical Logic, 2nd Edition. Handbook of Philosophical Logic, Vol 13. Editors: Gabbay D., Guenthner F. Springer, Dordrecht, 2005.  The fixed-point theorem for diagonalizable algebras. Stu-dia Logica, Vol. 34, No. 3, 239–251, 1975.  Blackburn, P., de Rijke, M., Venema, Y., Modal Logic and Their Al-gebras. In: Algebraic Tools for Modal Logic. Editors: Gehrke, M., Venema,Y. Helsinki, Finland, 2001.  Blok, W.J Pigozzi, D., Algebraizable logics. Memories of the Amer-ican Mathematical Society, Providence, Rhode Island, USA, 1989.  Magari, R., Representation and duality theory for diagonalizable al-gebras. Studia Logica, Vol. 34, No. 4, 305–313, 1935. |