Project topics — proposal

Logic 2019/20

Professor Isabel Oitavem

Proposicional Calculus

Syntax

1. 1.1.3 The decomposition tree of a formula ——— lecture 2 (**26 Sept.**)
   1.1.4 The unique decomposition theorem
2. 1.1.6 Substitutions in a propositional formula ——— lecture 3 (**3 Oct.**)

Semantics

3. 1.2.2 Tautologies and logically equivalent formulas – lecture 3 (**3 Oct.**)

Compactness

4. 1.5.1 Satisfaction of a set of formulas ———— lecture 4 (**10 Oct.**)
5. 1.5.2 The compactness th. for propositional calculuss - l.4 (**10 Oct.**)

Normal forms and complete set of connectives

6. 1.3.1 Operations on $\{0, 1\}$ and formulas —— lecture 5 (**17 Oct.)**
7. 1.3.1 Normal forms —— lecture 5 (**17 Oct.)**
8. 1.3.1 Complete sets of connectives —— lecture 5 (**17 Oct.)**

Predicate Calculus

Syntax

9. 3.1.2 Terms of a language ————— lecture 6 (**24 Oct.**)

Satisfaction of formulas in structures

10. 3.3.1 Interpretation in a structure of the terms — lecture 7 (**31 Oct.**)
11. 3.3.2 Satisfaction of the formulas in a structure —— lecture 8 (**7 Nov.**)

Completeness

12. 4.1.3 The finiteness theorem and the deduction theorem - l.9 (**14 Nov.**)
13. 4.2.1 Henkin witnesses ———— lecture 10 (**21 Nov.**)
14. 4.2.2 The completeness theorem ——— lecture 10 (**21 Nov.**)