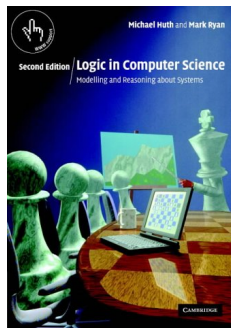


Logic and Modelling

— Introduction —

Jörg Endrullis

VU University Amsterdam



Logic in Computer Science
by Michael Huth and Mark Ryan

Cambridge University Press,
Second Edition, 2004

Course Structure

Lecturer: Jörg Endrullis

- ▶ room: T437
- ▶ email: `j.endrullis@vu.nl`

Teaching assistants:

- ▶ Peter Atkinson
- ▶ Roy Overbeek

Course structure:

- ▶ 2 lectures per week
- ▶ 2 exercise classes per week
- ▶ Exercise classes in week 2,3 are *computer practicum*.

Final exam, see rooster.vu.nl!

- ▶ **Passing the practicum required for exam participation!**

Final Exam and Final Grade

Passing the ProofWeb Practicum

You need to solve

- ▶ 50% of the propositional logic tasks assigned to you
- ▶ 50% of the predicate logic tasks assigned to you

Passing the practicum required for exam participation!

Final Exam

Covers everything that we have treated in the lectures and the parts of the book that you are expected to read.

Final Grade

The final grade for the course is:

- ▶ **final exam grade,**
- ▶ plus a maximum of 0.6 bonus points from the **practicum.**

Rough Course Content

The main subjects of this course are:

- ▶ propositional logic
 - ▶ syntax
 - ▶ semantic
 - ▶ natural deduction
- ▶ (first-order) predicate logic
 - ▶ syntax
 - ▶ semantic
 - ▶ natural deduction
- ▶ modal logic
 - ▶ frames and validity on frames
 - ▶ correspondence between formulas and frame properties
- ▶ important concepts are:
 - ▶ (in)completeness, correctness, consistency
 - ▶ (un)definability
 - ▶ (un)decidability