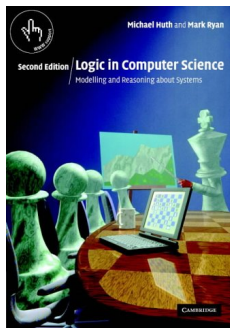


Logic and Modelling

— 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:

- ▶ **Geoffrey Frankhuizen**
- ▶ **Rob Lewis**

Course structure:

- ▶ 2 lectures per week
- ▶ 2 exercise classes per week
- ▶ in weeks 2 & 3 *bring your laptop to the exercise classes*

Final exam, see `rooster.vu.nl` (*not* `vurooster.nl`)!

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

Final Exam and Final Grade

Assignments (ProofWeb Practicum)

You need to solve

- ▶ 50% of the propositional logic tasks
- ▶ 50% of the predicate logic tasks without equality
- ▶ 1 of the predicate logic tasks with equality assigned

Passing the practicum required for exam participation!

Final Grade

The final grade for the course is:

- ▶ **final exam grade**
- ▶ plus a maximum of 0.5 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