

CS 2210 – Logic for Computer Scientists

Spring Semester 2015

Slides 1 – January 13, 2015

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<http://www.pascal-hitzler.de/>



<http://www.pascal-hitzler.de/teaching/s15/index.html>

Or go to <http://www.pascal-hitzler.de> and follow the link near the bottom of the page to the lecture.

Assistants:

Abtin Jalaei, jalaei.2@wright.edu

David Carral, dcarralma@gmail.com

- This class has a distance learning option.
- I.e. there will be quite a bit of communication via email. If something slips my attention (e.g., concerning difficulties with the online material) please let me know.
- Homework hand-ins in *hardcopy* in class or to my mailbox in the Computer Science department office. If this is impossible for you, let us know immediately. I will deposit the graded homework with the department secretary for pick-up [let me know if this is a problem].
- **I assume everybody will be physically present for the exams.** Exceptions will be made only in documented cases of emergencies.
Exams will be on **Saturdays**: February 14th, March 28th, April 25th,
time tbd, location tbd.

- The videos prepared this semester may be *reused* in subsequent semesters.
- I will therefore attempt to clearly separate the general content (relevant for future semesters) from content which is only relevant for this semester.
- I will usually prompt for questions. Feel free to ask questions any time, though.

- **Physical class meetings are Tuesdays and Thursdays 11am to 12:20pm.**
- **Three class meetings will be canceled (replaced by Saturday exams): details to be announced**
- **Room: Russ 355**
- **Assistant open hours/ help desk: Thursdays 5pm to 6pm Joshi 399. We have one open hour for starters. Let us know if more or other days/times are required.**
- **For questions:**
 - **For content questions: ask during the lecture, or go to the open hours of the assistants. If office hours don't work for you, contact Abtin to make alternative arrangements. As a last resort, send by email and I'll answer (usually) in class. My email: pascal@pascal-hitzler.de**
 - **For organizational issues: Preferably use email to David, or if appropriate to me. If you think it's better to talk in person, come to my office hours.**

- **Office Hours: Tuesdays 3:30pm to 4:30pm, Joshi 389.**
Email contact preferred. Phone will only work by appointment.
- **Textbook (recommended):**
Uwe Schöning, Logic for Computer Scientists, Birkhäuser, 2008.
- **Textbook (recommended):**
Mordechai Ben-Ari, Mathematical Logic for Computer Science, Springer, 1993
I will only take the Tableaux Algorithms from this one.
- **Grading:**
3 exams, 30% each
Graded Homework Assignments: 10%
Exams are on Saturdays, attendance strictly required.

- We will frequently make exercise sessions for discussing solutions.
You will get weekly exercises, to be done at home and graded by us, and discussed afterwards in class.
- Each “hand-in” exercise question counts 4 points.
- Weekly homework will be posted Tuesdays on the course website. They are due one week later (Tuesday) at 11am.
- We may (or sometimes may not) give you some or delayed feedback on late hand-ins, but they will not count towards your grade.
- Hand-ins are possible in the following ways:
 - hand to me before class
 - have them put into my mailbox in the department office.

- Due on the due date *before* class.
- Homework for the week is available Tuesdays from the class website.
- Which exercise is due when? See the homework sheet.
- Your name on every sheet.
- Answers clearly numbered.
- Easily readable handwriting or typesetting.
- Remove fuzzy margins.
- Staple multiple pages (no paper clips or other methods).
- If typeset using a computer, it is your responsibility that a printout is easy to read. *Do not use Word* as math content is almost unreadable. If you want to typeset, use of LaTeX is recommended.
- Explain and justify your solutions whenever appropriate.

- It may be helpful to work in teams (e.g., two people) to discuss the more difficult exercises. However, I expect that, after discussion, each person writes the solution entirely by him/herself.
- If I get two identical or near-identical write-ups, or otherwise two versions which look like one is a copy of the other, both parties will receive zero points.
- And yes, it's easy to spot this. In fact, if you manage to do a *clever* copying – one where it's clear it's not a copy – then I don't have a problem with this (because this requires insight into the exercise).

- I prefer to use a public website:
<http://www.pascal-hitzler.de/teaching/s15/index.html>
- A typeset manuscript which will be updated throughout the semester will be available from the website.
- The manuscript is almost identical to what I write on the whiteboard.
- The manuscript may also contain drafts of future material, taken from previous lectures, which is subject to change [you can ignore this, but you may find it instructive to take a look].
- The manuscript bears a date (first page) and margin notes indicate the dates when which part was covered.

Tentative

We cover Schöning 1.1, 1.2, 1.4, then Ben-Ari 2.6

We cover Schöning 2.1, 2.2, 2.3, then Ben-Ari 5.5

We will also cover basics of Datalog (this comes first), but there is no suitable textbook reference – please refer to the manuscript.