

TDBD15 – Advanced Data Models and Systems

June 5, 2006

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| Instructor | Michael Minock |
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| Office | C445 MIT-huset |
| Office Hours | Tuesday 15.15-17, Friday 15.15-17 |

1 Schedule

| Week | Date | Time | Room | Topic (event) |
|------|------------|--------------|--------------------|---|
| 13 | Fri 31-Mar | 13.15 - 17 | MC313 | Introduction, relational review, EER |
| 14 | Tue 04-Apr | 13.15 - 15 | MC313 | EER, common object-relational extensions (exercise 1 given) |
| 14 | Fri 07-Apr | 13.15 - 17 | MC313 | Temporal databases Spatial Databases |
| 15 | Tue 11-Apr | 13.15 - 15 | MC313 | Multi-dimensional databases |
| 17 | Tue 25-Apr | 13.15 - 15 | MC313 | Deductive databases I |
| 17 | Fri 28-Apr | 13.15 - 15 | MC313 | Deductive databases II (exercise 2 given) |
| 18 | Tue 2-May | 13.15 - 15 | MC313 | XML and XQuery |
| 18 | Fri 5-May | 13.15 - 15 | MC313 | Data Mining (project proposal deadline) |
| 19 | Tue 8-May | | | (exercise 1 due) |
| 20 | Tue 16-May | 13.15 - 15 | MC313 | Uncertainty in Databases |
| 20 | Fri 19-May | 13.15 - 15 | MC313 | Project Status |
| 21 | Tue 23-May | 13.15 - 15 | MC313 | Natural Language Interfaces to Databases (optional) (exercise 2 due)(exercise 3 given) |
| 21 | Tue 23-May | 15.15 -17 | MC313 | Review |
| 23 | Mon 5-June | 13.15 -17 | | Project Presentation Session 1 |
| 23 | Wed 7-June | 13.15 -17 | | Project Presentation Session 2 |
| 23 | Fri 9-June | | | (exercise 3 due) (project reports due) |
| 22 | Sat 3-June | 9.00 - 14.00 | Skrivsal 5 (86762) | Exam 1 |
| 34 | Fri 25-Aug | 9.00 - 15.00 | Skrivsal 6 (86763) | Exam 2 |

2 Course Language and Readings

All lectures will be given in English, and all written work must be submitted in English. The text for this course is a book that I am writing[2]¹. Portions of this book will be released onto the course website as we progress through the term. The policy on these releases are that a fresh version shall be released every Monday and Thursday before noon so that early bird students can read material that will be covered in subsequent lectures. Finally, the final version of the text, released on Monday May 22th may be printed and used as a reference during the final exam.

3 Grading System

40% (400 points) of the grade for the course will be based on a group project and 60% (600 points) will be based on an exam covering the reading materials and lectures. In addition, there will be 3 system exercises that students must complete to a satisfactory degree.

| Total points (p) | Grade |
|----------------------|-------|
| $p \geq 800$ | 5 |
| $800 > p \geq 650$ | 4 |
| $650 > p \geq 500$ | 3 |
| $p < 500$ | U |

If you do not amass 500 points after the third exam, then you must repeat the course to receive a passing grade.

4 Rules on Exercises and Project

Students may work alone or in groups of up to four persons on the system exercises.

Working alone or in groups of up to four persons, students must propose, in writing (max 250 words) and in person, a project of joint interest. And this proposal *must* in turn be accepted. Candidate projects will occasionally be announced and described in class, but I would prefer for students to engage their creativity and propose programming (or theoretical) projects of their own interest. Note that students who do not have an accepted project by **May 5**, will lose 100 points and will have a project assigned by me (to be received by the student(s) prior to the lecture on May 16th).

The students must complete the project by the end of the course. Groups must present their work in a 20 minute talk. If the work is a system or application, they

¹The text used in the regular database course[1] may be helpful as well.

must also give an “industrial style” demo of their working system. In all cases the students must write a well written 5 page report. Note that all group members must be present at the demonstration and should be able to enthusiastically describe and support their group’s system or application.

Projects unable to meet this deadline, shall lose 200 points and must be presented to me at a later date. Students unable to attend a presentation session of their group will, individually, lose 100 points. Otherwise the grades for the group projects will be assigned to all members equally. The grade will be based on the quality of the proposal, system demonstration, presentation material (and delivery), and the final written report.

References

- [1] R. Elmasri and S. Navathe. *Fundamentals of Database Systems 3rd edition*. Addison Wesley, 2000.
- [2] M. Minock. *Relational Representations*. unpublished manuscript, 2004.