

# TDBD15 – Advanced Data Models and Systems

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## 1 Schedule

Week	Date	Time	Room	Topic (event)
13	Tue 23-Mar	13.15 - 17	MA236	Introduction, relational review, EER
13	Fri 26-Mar	13.15 - 15	MA236	EER, common object-relational extensions
14	Tue 30-Mar	13.15 - 15	MA236	Temporal databases
14	Fri 02-Apr	13.15 - 15	MA236	Spatial databases (exercise 1 given)
15	Tue 06-Apr	13.15 - 15	MA236	Multi-dimensional databases
17	Tue 20-Apr	13.15 - 15	MA236	Deductive databases I
17	Fri 23-Apr	13.15 - 15	MA236	Deductive databases II (exercise 1 due) (exercise 2 given) (project proposal deadline)
18	Tue 27-Apr	13.15 - 15	MA236	Restricted relational languages, nested relational model
19	Tue 04-May	13.15 - 15	MA236	XML and XQuery
19	Fri 07-May	13.15 - 15	MA236	Uncertainty in databases
20	Tue 11-May	13.15 - 15	MA236	Project Status
20	Fri 14-May	13.15 - 15	MA236	(canceled)
21	Tue 18-May	13.15 - 15	MA236	Data mining (exercise 2 due) (exercise 3 given)
22	Tue 25-May	13.15 - 15	MA236	Review
22	Fri 28-May	13.15 - 17	MA236 and MA246	<b>Exam</b>
23	Sat 5-June	9.15 - 17	MA236	Project Presentations
24	Wed 9-June			(exercise 3 due) (project reports due)
35	Fri 27-Aug	9.00 - 15.00	Skrivsal 5	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]<sup>1</sup>. 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 24th 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 50% (500 points) will be based on an exam covering the reading materials and lectures. In addition, there will be 3 exercises with each accounting for 33 points covering 9.9%<sup>2</sup> of the grade.

In addition I will award bonus points for correctly answering difficult portions of the exercises or test. Bonus points may also be awarded to those who do an outstanding job on the project. Note that to actually be credited these points, the student must obtain at least 50% (250) points on their final exam.

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 this second exam, then you must repeat the course to receive a passing grade.

## 4 Rules on Exercises and Project

Students may work in groups of up to four persons on the system exercises. Exercises will lose 10 points per day late.

Working 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

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<sup>1</sup>The text used in the regular database course[1] may be helpful for back-up.

<sup>2</sup>As an opening act of generosity, the final 1 point (0.1%) will be awarded for simply enrolling in this class.

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 April 23rd, will lose 100 points and will have a project assigned by me (to be received by the student(s) prior to the lecture on April 27th).

The students must complete the project by the end of the course. In a special day-long presentation session on Saturday, June 5th, project groups must present their work in a 20 minute talk. If the work is a system or application, they 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 lose 200 points. Students unable to attend the presentation session 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.