

University of Waterloo
School of
Computer Science

CS 338
Computer Applications in
Business: Databases

T. R. Grove
Winter 2006

Course Information

- Lecture hours:
Thursday, 7:00-9:50 PM (1900h-2150h)
MC 2038
- Instructor:
Trevor Grove
CSCF, Cheriton School of Computer
Science
Davis Centre 2562
E-mail:
`trg+cs338w2006@cs.uwaterloo.ca`

Voice: (519) 888-4679
On campus: x 4679
- Teaching assistants:
to be determined

...continued

- Workload:
 - five assignments (typically due ~10 days after handed out)
 - midterm exam
 - final exam
- Important dates (from http://www.adm.uwaterloo.ca/infoucal/INTRO/acad_cal.html):
 - January 3, 2006: lectures begin
 - February 9, 2006: midterm in class
 - February 23, 2006: Reading days/week – no lecture
 - March 29, 2006: last day of lectures – Math/Engineering
 - April 3, 2006: last day of lecture – everyone else
 - April 6 – April 22 (inclusive), 2006: exam period (no exams on April 14 or 15)

Grading

Course mark will be best of:

- | | |
|---|------------|
| 1) Assignments (5, unequally weighted): | 30% |
| Midterm: | 30% |
| Final: | <u>40%</u> |
| | 100% |
| 2) Assignments: | 30% |
| Final: | <u>70%</u> |
| | 100% |
| 3) Midterm: | 30% |
| Final: | <u>70%</u> |
| | 100% |
| 4) Final: | 100% |

Final exam grade must exceed 50% to pass the course

References

Lecture notes: available in PDF and HTML format from course web page (see below)

Textbook: *Fundamentals of Database Systems*, Elmasri and Navathe; Addison-Wesley; Fourth Edition, © 2004

- if you can find used copies, Third Edition (© 2000) is also acceptable (lecture notes will have references for both)
- reserve copies will be available in the Porter Library (Davis is closed this term)

Mail-list: <http://lists.uwaterloo.ca/listinfo/cs338>

Web page:

<http://www.student.cs.uwaterloo.ca/~cs338/>

Assignment Policy

- Assignments will be a combination of electronic and paper submission. Details will be provided with each assignment.
- Late assignments *will not* be accepted.
- Assignments are to be done individually
 - informal collaboration is acceptable, but work submitted for marking must be an individual effort
 - the CS department penalty for violation of this policy is *minus* the assignment mark plus a letter of reprimand from the Associate Dean (or suspension for a second offence)
 - see:
<http://www.cs.uwaterloo.ca/undergrad/programs/policies/cheating.shtml>

Course objectives

- Become familiar with key concepts supported by a database management system (DBMS)
- Understand data modeling tools and methodology
- Learn to use a relational database system
- Learn to express queries against a relational database, and manipulate its contents
- Become familiar with underlying structures and implementation features of a DBMS
- Establish fundamental expertise necessary to pursue further database studies

Lecture topics

- Overview of database technology
- The relational model; SQL language
- Data modelling
- Normal forms
- DBMS architecture (distributed DB systems)
- Transaction management
- DBMS Indexing & physical organization
- Query processing
- Advanced topics (time permitting)

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