Syllabus

Instructor
Dr. Kostas Kalpakis
Computer Science & Electrical Engineering Department
Office: ECS 233A
Phone: (410) 455-3143
Email: kalpakis@csee.umbc.edu
Class homepage: http://www.csee.umbc.edu/~kalpakis/Courses/691D/
Office Hours: after class and by appointment.

Meeting Time and Place
Tuesday 7:00pm–9:30pm
Room SS 103

Teaching Assistant: Umang Coundary, Room TBA
Phone: 410-455-XXXX, Email: umang@csee.umbc.edu.
Office hours: TBA.

Important Dates

- Midterm Exam, March 13, 2001, 7:00pm–8:15pm.
- Final Exam, May 22, 2001, 8:30pm–10:30pm.
- Projects due, May 15, 2001, 7:00pm.

Prerequisites: CMSC–461 or CMSC–661; excellent programming skills in C and (preferably) Java; or permission of the instructor.

Texts. The required text is: Michael Stonebraker, Paul Brown, and Dorothy Moore, “Object–Relational DBMSs, Tracking the Next Great Wave”, Morgan Kaufmann, 1999. In addition, a number articles and notes will be made available by the instructor.

Tentative List of Topics.

- Characteristics of Database Applications
- Base Data Type Extensions
• Complex Objects
• Inheritance
• Rules
• Query Optimizers
• Rule System Implementation
• System Architectures
• Extension Performance
• Universal Applications and Servers
• Database Design
• Selected topics.

Required Work
Required work consists of (1) taking the midterm and final exams, (2) homework assignments and paper presentations, (3) carrying out a project. Further, you are expected to actively participate in all class discussions and presentations.

There will be a few (1–3) homework assignments. Some may require use of computer systems. Homework assignments are to be done individually by each student. Each homework assignment will be due at the beginning of class on the date specified. No late homeworks will be accepted, unless University Policy states otherwise.

Each student will be assigned a paper from the literature on database techniques and applications. Each student will present a critique on his/her assigned paper and lead the discussion on that paper in class. Each student will read all the assigned papers and participate in the class discussion of those papers.

In addition to homework assignments and paper presentations, there will be a project requiring substantial amount of work. It will involve both theoretical and practical issues in universal database servers and/or applications. The project must be carried out by a small team (2-4) students. No late projects will be accepted, unless University Policy states otherwise. Students will give short presentations on their projects during the last day of classes. You will have at least eight weeks to work on your project. Additional details regarding projects will be provided by the instructor within the first three weeks of classes.

There will be a midterm exam and a comprehensive final exam. All the exams will take place in class and will be closed-books.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Project</td>
<td>40%</td>
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<tr>
<td>Homework</td>
<td>5%</td>
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<tr>
<td>Class Discussions</td>
<td>5%</td>
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<tr>
<td>Presentations</td>
<td>10%</td>
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<tr>
<td>Midterm Exam</td>
<td>20%</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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Table 1: Course Activities and their relative weights.

**Facilities.** You will have access to the facilities and software available in the CSEE department. The instructor may provide you with access to additional resources, if available for the purposes of your project(s). Be advised that you may need to have access to your own personal (Linux, Solaris, or Windows NT) desktop depending on your project. In any case, you should coordinate with the instructor as needed.

**Grading Policy**
The course grades will be determined as follows. For each course activity in Table 1, each student will receive an activity score, which will be the average of the student’s scores on the assignments for that activity. An activity score is a number in the range $0 \ldots 100$. A term score will be computed by taking the weighted sum of the activity scores, using the relative weights given in Table 1. The instructor will convert term scores into letter grades by using the following mapping: $[90, 100] \Rightarrow A$, $[80, 90) \Rightarrow B$, $[70, 80) \Rightarrow C$, $[60, 70) \Rightarrow D$, $[60, 100] \Rightarrow P$, $[0, 60) \Rightarrow F$.

Make-up exams are possible only under University Policy. You should make prior arrangements with the instructor if you expect to miss an exam. Incomplete grades will issued only under those extreme situations described by University Policy for granting incompletes. Failure to complete assignments on time is not a sufficient reason for an incomplete. **Necessary but not sufficient conditions to pass the course are as follows: you must have an activity score of at least 50 points for each activity.**