Lectures:

A/Prof. Leszek Maciaszek (Lecturer in Charge)
room: E6A 319
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phone: 9850-9519

Ms Didar Zowghi
room: E6A 369
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Mr Ian Cowell
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phone: 9850-9510

Practicals (tutorials/workshops):

Ian Cowell email: icowell@mpce.mq.edu.au
Ian Joyner email: ijoyner@mpce.mq.edu.au
Richard Kinder email: rkinder@mpce.mq.edu.au
Leszek Maciaszek email: leszek@mpce.mq.edu.au
Richard Kinder email: didar@mpce.mq.edu.au

Time and place (day-time offering):

Lectures:
Monday 10.05 - 10.55 Mason
Thursday 10.05 - 10.55 Mason
Friday 9.05 - 9.55 X5BT1

Practicals:
Monday 11.05 - 11.55 Practical A
Monday 14.05 - 14.55 Practical B
Monday 15.05 - 15.55 Practical C
Tuesday 10.05 - 10.55 Practical D
Tuesday 11.05 - 11.55 Practical E
Tuesday 12.05 - 12.55 Practical F
Tuesday 14.05 - 14.55 Practical G
Tuesday 15.05 - 15.55 Practical H
Tuesday 16.05 - 16.55 Practical I
Friday 12.05 - 12.55 Practical J

Tutorials:
Thursday 11.05 - 11.55 Tutorial A E6A 133
Thursday 12.05 - 12.55 Tutorial B C5C 236
Thursday 12.05 - 12.55 Tutorial C E6A 133
Thursday 14.05 - 14.55 Tutorial D E6A 131
Thursday 15.05 - 15.55 Tutorial E E6A 133
Friday 10.05 - 10.55 Tutorial F E6A 109
Friday 10.05 - 10.55 Tutorial G E6A 131
Friday 11.05 - 11.55 Tutorial H E6A 131
Friday 11.05 - 11.55 Tutorial I E7B 263

Reading list:
Texts:

Unit objectives:
The aim of this unit is teach students how to program relational database applications. The emphasis is placed on modeling business applications, on programming with SQL language, on principles of the relational database model and database design, and on architecture and storage of database systems. Practical work involves the use of a commercial database management system (ORACLE8 on a Unix platform) together with the tools to assist in programming client/server database applications.

Assessment:
Three Assignments (each worth 10%)
Assignments need to be submitted in the COMP224 assignment boxes in building E6A ground floor. They should be well presented and clearly showing on the front cover: student's first name and family name (family name underlined or in capital letters), student number, course name and assignment number. Late assignments will be discounted by 1 mark per day after the deadline.

Mid-semester test (10%)

Final examination (60%)
Students must perform satisfactorily in the final examination as well as in the combined assignments/tests total in order to pass.

Withdrawal
The withdrawal dates for the first semester are:
on or before 31 August:
NE - not effectively enrolled, no record on academic transcript, no HECS charge
after 31 August:

FW - failure recorded, HECS paid
W - withdrawal without penalty because of “unavoidable disruption”, W printed on the record, HECS paid

**Code of Behaviour**

The Code of Behaviour sets out our expectations concerning the use of the computing facilities. The University Council has approved a set of rules governing access to and the use of the University's computing facilities. Students who break them may be suspended from using the systems and, in serious cases, may be referred to the Discipline Committee of the University.

The rules set out the rights and, conversely, the responsibilities of all users of the facilities. In particular, they are based on the principle that the files in an account are the owner’s personal property and should be treated as such. Unauthorised use of someone else's account is a serious offence, whether it be copying their files (stealing), or changing them (damage), or merely gaining access to them (trespass). You will be expected to observe these rules and also any other regulations posted in the Department's laboratories.

**Special considerations:**

If illness or misadventure makes it impossible for you to sit the final examination, or interfere significantly with your performance in the exam, you are permitted to request “special consideration” (see the University Calendar).

To be eligible for such consideration, you are required to sit a special examination, and should note the following:

- We will not grant a special examination unless you have completed all of the compulsory work in the unit and have attained half marks in at least 3 (out of 4) assignments.
- If you are granted special consideration, we will require you to sit a special examination. We will not consider your performance in the final examination at all in assessing your final grade.
- You must ensure that you are readily available to be contacted, and must hold yourself available to sit for the special examination at short notice on the date and time we set.
- If you elect to be away from your contact address during the week of the special examination, and so cannot be contacted, or are unavailable to sit for the examination, your grade for this unit will be reported as FA.
- It is essential that you notify the Registrar in writing of your misadventure, accompanied by documentary evidence. If your application is the result of illness, your medical certificate should indicate the nature of the illness, and its effect on your ability to sit for or to perform in the examination.
- The purpose of any special examination is to resolve the temporary difficulty caused by your illness or misadventure, and is not to give you an advantage over other students by allowing you extra time to study. We will, therefore, hold the special examination as soon as possible, and in determining your grade, we will take into account the possibility of extra study time available to you.

**Oracle Prize:**

The best COMP224 student will be rewarded the Oracle Corporation Prize to the value of $400.
<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture (Lecturer)</th>
<th>Tutorials/Practicals {subject to changes; any changes to tuts/pracs will be confirmed in lectures one week before}</th>
<th>Textbook {chapters applicable to lectures}</th>
<th>Asg/Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Jul 27</td>
<td>Introduction to database systems and data modeling. (Didar Zowghi)</td>
<td>[No Tuts] [No Pracs]</td>
<td>1; 2.1 - 2.5</td>
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<tr>
<td>2 Aug 3</td>
<td>Advanced data modeling and relational algebra. (Didar Zowghi)</td>
<td>Getting started with ORACLE [Pracs] ER modeling [Tuts]</td>
<td>2.6 - 2.10; 3.1 - 3.2</td>
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<tr>
<td>3 Aug 10</td>
<td>Relational model. Relational Algebra. (Didar Zowghi)</td>
<td>Review of basic SQL [Pracs] Relational algebra [Tuts]</td>
<td>3.5 - 3.8</td>
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<tr>
<td>4 Aug 17</td>
<td>The ORACLE system architecture. (Ian Cowell)</td>
<td>Basic SQLPLUS reports and commands [Pracs] Extended relational algebra [Tuts]</td>
<td>Oracle8 doc</td>
<td>Asg. 1 out</td>
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<tr>
<td>5 Aug 24</td>
<td>Advanced interactive SQL. Text, number, date and other functions. (Ian Cowell)</td>
<td>Using ORACLE Data Dictionary [Pracs] [No Tuts]</td>
<td>Ch. 4 Oracle8 doc</td>
<td></td>
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<tr>
<td>6 Aug 31</td>
<td>Procedural extensions to SQL. ORACLE PL/SQL. (Ian Cowell)</td>
<td>Advanced interactive SQL [Tuts] SQL functions [Pracs]</td>
<td>Oracle8 doc</td>
<td>Asg. 1 in Asg. 2 out</td>
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<tr>
<td>7 Sep 7</td>
<td>Stored PL/SQL procedures. (Ian Cowell)</td>
<td>PL/SQL [Pracs] [No Tuts]</td>
<td>Oracle8 doc</td>
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<tr>
<td>8 Sep 14</td>
<td>Integrity constraints. Programming with triggers. (Leszek Maciaszek)</td>
<td>Stored PL/SQL [Pracs] [No Tuts]</td>
<td>6.1 - 6.4 Oracle8 doc</td>
<td>Asg. 2 in Mid-test</td>
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<td><strong>Break</strong> Sep 21 - Oct 11</td>
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<tr>
<td>9 Oct 12</td>
<td>Relational database design (Leszek Maciaszek)</td>
<td>Triggers [Pracs] &amp; [Tuts]</td>
<td>6.5; 7</td>
<td></td>
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<tr>
<td>10 Oct 19</td>
<td>Object and object-relational databases (Leszek Maciaszek)</td>
<td>Normalization [Tuts] [No Pracs]</td>
<td>8; 9 Oracle8 doc</td>
<td>Asg. 3 out</td>
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<tr>
<td>11 Oct 26</td>
<td>Object extensions in Oracle8 (Leszek Maciaszek)</td>
<td>Querying object tables [Tuts or Pracs]</td>
<td>Oracle8 doc</td>
<td></td>
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<tr>
<td>12 Nov 2</td>
<td>Indexing and hashing. (Leszek Maciaszek)</td>
<td>Object tables and object views in Oracle8 [Pracs] &amp; [Tuts]</td>
<td>11 Oracle8 doc</td>
<td>Asg. 3 in</td>
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<tr>
<td>13 Nov 19</td>
<td>Storage and file structure (Leszek Maciaszek)</td>
<td>B-trees [Tuts] [No Pracs]</td>
<td>10</td>
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