Unit outline:
COMP227 provides an understanding of the system development process, which links user requirements to an enterprise information system. This unit emphasises problem formulation and problem solving. Students will learn how to analyse a problem domain and develop appropriate analysis and design models to formalise the requirements using object oriented methods, appropriate theory, and relevant software development tools.

Unit objectives:
Students will gain an introduction to and competency in problem domain analysis and computer-based system design methods - their principles, application and practice.
A student successfully completing the unit will:
- have an understanding of the life cycle of system development
- have knowledge of requirements elicitation and management techniques
- be able to analyse the system requirements and build an analysis model of the system
- be able to turn the analysis model into a design model from which a system can be implemented
- be able to use CASE tools to support the requirements analysis and system design
- be able to design user-computer interfaces and fundamental database structures
- be aware of the impact of implementation issues on various phases of the development life cycle

Textbook:

Textbook website:
http://www.comp.mq.edu.au/books/rasd2ed/

While the textbook is the main study material, it is by no means the only source of information. Additional knowledge will be passed on in lectures, tutorials and practicals. Some of these additional material will be available from the unit’s website. Students should also refer to other textbooks in the subject area.
Lectures – time and place:

Lectures:
Monday 11am – 12pm X5B T1
Tuesday 9am – 10am X5B T1
Tuesday 1pm – 2pm X5B T1

Lecturing Staff:

Leszek Maciaszek (LM) – Unit Convener
room: E6A 319
email: leszek@ics.mq.edu.au
phone: 9850-9519
web: http://www.comp.mq.edu.au/~leszek

Rajan Shankaran
room: E6A 337
email: rshankar@ics.mq.edu.au
phone: 9850-9537

Tutors:

DURGA PRASSAD Bollina dbollina@bio.mq.edu.au
MAZUR Pawel mpawel@ics.mq.edu.au

Tutorials/Practicals:

The most current class details for tutorials and practicals are available from the following webpage:

Administration of teaching software:

Ian Cowell
room: E6A 366
email: icowell@ics.mq.edu.au
phone: 9850-9566

Email communication:

Students are reminded that it is now Macquarie University policy that all official communication from the University to a student will be delivered via that student's University-issued e-mail account via the myMQ student portal. Students should ensure that they check their official University e-mail account regularly.

Unit organization:

The unit addresses two system development phases:

- **requirements analysis** that develops abstract system models that are independent from the way the system will be eventually implemented, and
- **system design** that develops specific models as they will be implemented on a particular hardware/software platform.

About lectures

There are two lecturers in the unit. The students are strongly advised to page through the lecture slides (available from the COMP227 WebCT site) and read relevant textbook chapters before coming to lectures.
About tutorials and practicals

A lecturer teaching in a week is responsible for setting up tutorials and practicals in the following week. Tutorial/practical tasks are published on the COMP227 WebCT at the latest by 11:00 AM on a Thursday previous to the tutorial/practical week.

Students have to electronically submit tutorial answers/solutions by Monday 10:00 AM in a tutorial week (as explained under Assessment heading in this document). Students must bring a printed copy of their answers/solutions to a tutorial class. Students should bring a printed copy of the practical tasks for the week to a practical class.

The most current class details for tutorials and practicals are available from the following webpage:


Appointments

The main means of communication with the unit’s staff, outside of teaching times, is email. Students who request to consult with a staff member should seek an appointment by email (unless a staff member has set weekly consultation hours).

All email messages sent to members of staff must include the sender's full name and student ID (where appropriate). If this information is not provided, no reply should be expected.

Software administration

Ian Cowell will provide assistance with the IBM Rational Suite, Magic Draw and PowerDesigner software installed in the laboratories, but the first source of contact for a student should be a tutor.

Assessment:

Ten tutorials (worth 10 marks total; 1 mark each; negative marks possible)

Starting from Week 2 and extending for ten consecutive weeks, students have to electronically submit tutorial answers/solutions by Monday 10:00 AM in a tutorial week (no submissions required in Weeks 12 and 13). The submission is to be done using the COMP227 WebCT submission mechanism.

Late submissions will not be accepted. The submissions must be in a single Microsoft Word document (template tutorial documents for each week are provided on the unit’s website).

The marking principles are as follows:

- No submission or unacceptable submission will result in a mark of 0.
- If you submitted, but you have not attended the tutorial (or attended without the hard-copy of your answers) your mark will be 0.5.
- You can only get mark of 1, if you submitted your answers, attended your tutorial class, and you brought a hard-copy of your tutorial answers to the class.
- Any discovered dishonesty will be dealt with harshly, including a negative mark -5 to all students involved. Some situations when the penalty of –5 marks can apply include unfinished, question-unrelated or irrelevant answers, or falsely registering possession of a submitted paper in the class.

Two Assignments (of the combined value of 30 marks)

There are two relatively large and comprehensive assignments in the Unit. Students must carefully organize and manage time needed to complete the assignments and start working on them as soon as they are released. The first assignment is in requirements analysis, the second in system design.

Assignments need to be submitted both electronically and as printed documents in the COMP227 Assignment Boxes in building E6A ground floor. They should be well presented and include the COMP227 Assignment Cover Sheet. Late assignments will not be accepted.

Final examination (60 marks)

Students must perform satisfactorily in the final examination as well as in the combined assignments/tutorials total in order to pass.
Special Consideration Policy
www.comp.mq.edu.au/undergrad/policies/special_consideration_policy.html

Plagiarism
www.comp.mq.edu.au/undergrad/policies/plagiarism_policy.html

Laboratory Usage
www.comp.mq.edu.au/undergrad/policies/lab_usage.html
<table>
<thead>
<tr>
<th>Week</th>
<th>Lecturer</th>
<th>Lectures</th>
<th>Textbook Reading</th>
<th>Tutorials</th>
<th>Practicals</th>
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<tr>
<td>1 (Aug 1)</td>
<td>Leszek</td>
<td>Software Process</td>
<td>Ch.1</td>
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<td>No Practicals</td>
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<td>Ch.2</td>
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<td>Rajan</td>
<td>Fundamentals of Object Technology</td>
<td>Ch.3.1</td>
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<td>Related to Chapter 3.1</td>
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<td>Ch.4</td>
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<td>Ch.5</td>
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<td>Magic Draw</td>
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<td>User Interface Design</td>
<td>Ch.7</td>
<td>Related to Chapter 6</td>
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<td>Ch.8</td>
<td>Related to Chapter 7</td>
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