SCSSE
School of Computer Science and Software Engineering
Faculty of Informatics

MCS9205 Development Methods & Tools
Subject Outline
Spring Session 2008

Head of School – Professor Philip Ogunbona, Student Resource Centre, Tel: (02) 4221 3606

GENERAL INFORMATION

Subject Coordinator
Associate Professor Minjie Zhang
Telephone Number: 4221 4745
Email: minjie@uow.edu.au
Location: 3.213

Prof. Zhang’s consultation times during session:
Day         Time
Monday     8.30-10.30
Tuesday   10.30-12.30

Subject Organisation
Session: Spring Session, Wollongong Campus
Credit Points: 6 credit points
Contact hours per week: 3 hours lectures, 2 hours Computer lab
Lecture Times & Location:
Tuesday: 08.30 – 10.30 at 19.G026
Monday: 10.30 – 11.30 at 20.LT5

Tutorial Day, Time and Location can be found at: http://www.uow.edu.au/student/timetables/index.html

Students should check the subject’s web site regularly as important information, including details of unavoidable changes in assessment requirements will be posted from time to time via e-Learning space http://www.uow.edu.au/student/lol. Any information posted to the web site is deemed to have been notified to all students.

Subject Description
This subject provides an introduction to the process of design and analysis of software. Students will receive a formal introduction to the design process and techniques, followed by the opportunity to use modern design techniques to address real-world problems. A range of modern techniques and tools will be covered, in particular UML.

Objectives
On completion of this subject the student should be able to: 1. explain the techniques and stages of a selected modern analysis and design method 2. describe the range of application domains to which a method can properly be applied 3. demonstrate proficiency in the correct use of the techniques learnt 4. properly apply the method to a particular analysis and design problem within the method’s application domain. 5. Correctly use UML notation to document the analysis and design

Graduate Qualities
All Schools in the Faculty of Informatics have adopted the UOW Graduate Qualities. On completion of their course graduates will be informed, independent learners, problem solvers, effective communicators and responsible. Further information can be found at http://www.uow.edu.au/about/teaching/qualities/.

**Attendance Requirements:**
It is the responsibility of students to attend all lectures/tutorials/labs/seminars/ practical work for subjects for which you are enrolled. It should be noted that the amount of time spent on each 6 credit point subject should be at least 12 hours per week, which includes lectures/tutorials/labs etc.

Students MUST attend their allocated tutorial unless they have the written permission of the subject coordinator.

**Method of Presentation:**
In order to maximize learning outcomes, it is strongly recommended that students attend all lectures.

This subject consists of 3 hrs lecture, 2 hrs computer lab.

Lecture notes, lab and assessment tasks will be made available through e-Learning.

Students should check the subject’s web site regularly as important information, including details of unavoidable changes in assessment requirements will be posted from time to time. It is student’s responsibility to check this site regularly. Any information posted to the web site is deemed to have been notified to all students.

**Lecture Schedule:**
A proposed Lecture schedule for the subject is as follows:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Subject information, Software Engineering, Requirement Analysis</td>
<td>NO LABORATORIES</td>
</tr>
<tr>
<td>2</td>
<td>Object Concepts</td>
<td>LABORATORIES COMMENCE</td>
</tr>
<tr>
<td>3</td>
<td>Introduction to UML</td>
<td></td>
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<tr>
<td>4</td>
<td>Essentials of Class Models</td>
<td>ASSIGNMENT 1 RELEASE</td>
</tr>
<tr>
<td>5</td>
<td>Essentials of Use Cases Models</td>
<td></td>
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<tr>
<td>6</td>
<td>Interaction Diagrams</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>State and Activity Diagrams</td>
<td>ASSIGNMENT 1 DUE</td>
</tr>
<tr>
<td>8</td>
<td>Design Patterns</td>
<td>MID-TEST</td>
</tr>
<tr>
<td>9</td>
<td>Design Patterns</td>
<td>ASSIGNMENT 2 RELEASE</td>
</tr>
<tr>
<td>10</td>
<td>Other Design Methods</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Other Design Methods</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Software Architecture</td>
<td>ASSIGNMENT 2 DUE</td>
</tr>
<tr>
<td>13</td>
<td>Subject Revision and Exam Preparation</td>
<td>NO LABORATORIES</td>
</tr>
</tbody>
</table>

Changes to the above schedule will be posted via e-Learning space http://www.uow.edu.au/student/lol. Any information posted to the web site is deemed to have been notified to all students.
Subject Materials:
Any readings/references are recommended only and are not intended to be an exhaustive list. Students are encouraged to use the library catalogue and databases to locate additional readings.

Textbook(s):

Other Resources:
Additional Reading


Significant References


Assessment:
This subject has the following assessment components.

<table>
<thead>
<tr>
<th>ASSESSMENT ITEMS &amp; FORMAT</th>
<th>% OF FINAL MARK</th>
<th>GROUP/INDIVIDUAL</th>
<th>DUE DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Assignments</td>
<td>30%</td>
<td>2 people or individual</td>
<td>Assignment 1 due on 1st September, Monday (Week 7) 15% Assignment 2 due on 13th October, Monday (Week 12) 15%</td>
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<tr>
<td>There are two assignments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Session Test</td>
<td>20%</td>
<td>Individual</td>
<td>On 8th September, in Monday’s lecture (Week 8)</td>
</tr>
<tr>
<td>3. Final Examination</td>
<td>50%</td>
<td>Individual</td>
<td>Examination Period</td>
</tr>
</tbody>
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Notes on Assessment:
All assignments are expected to be completed independently. Plagiarism may result in a FAIL grade being recorded for that assignment.

Electronic Submission of Assessment Items:
Unless otherwise notified by the subject coordinator, all written assignments must be submitted electronically.

Procedures for the submission of assessment items:
Students can work on assignments in groups of two or individual.
In weeks 7 and 12, students should submit their work to the lecturer at the end of a MCS9205 lecture (Monday).
• All submissions must be accompanied by an Assignment Cover Sheet.
• No submission will be accepted in any electronic form.
• Each student needs to demonstrate proficiency in use of a case tool. It is assessed by four laboratory exercises. Theses exercises will be given to students in four different lab classes. In the end of these lab classes, students need to demonstrate their work to the tutor. This part of assessment is individual work. Schedule of these exercises will be available on the subject web page.

To be eligible for a Pass in this subject a student must achieve a mark of at least 45% in the final examination. Students who fail to achieve this minimum mark will be given a TF (Technical Fail) for this subject.

Procedures for the return of assessment items:
Assignments will be available from the subject coordinator after being marked. All assignments will be returned within 2 weeks of their submission.

Penalties for late submission of assessment items:
Penalties apply to all late work, except if special consideration has been granted. Late submissions will attract a penalty of 25% of the assessment mark per day including weekends. Work more than four (4) days late will be awarded a mark of zero.

Supplementary Exams
Supplementary Exams will be dealt with in accordance with student academic consideration policy (http://www.uow.edu.au/handbook/courserules/specialconsideration.html) 6.2 Timing of Supplementary Exams.

While the School normally grants supplementary exams when the student does not sit the standard exam for an acceptable reason, each case will be assessed on its own merit and there is no guarantee a supplementary exam will be granted. If a supplementary exam is granted, you will normally be notified via SOLS Mail the time and date of this supplementary exam. You must follow the instructions given in the email message.

Please note that if this is your last session and you are granted a supplementary exam, be aware that your results will not be processed in time to meet the graduation deadline.

Special Consideration Policy
The School recognises that it has a responsibility to ensure equity and consistency across its subjects for all students. Sometimes, in exceptional circumstances, students need to apply for student special consideration in order to complete all assessable work.

The University applies strict criteria to the granting of special consideration. Before applying for student special consideration, students should carefully read the University’s policy which can be found at: http://www.uow.edu.au/handbook/courserules/specialconsideration.html

As an example: If a student requires an extension of time for the completion of an assignment this may be granted in certain circumstances. A request for an extension must be made to the Subject Coordinator via SOLs before the due date.

Additional Information
Students must refer to the Faculty Handbook or online references which contains a range of policies on educational issues and student matters in Lab sessions
• Students must abide by the laboratory rules posted on the wall of the Laboratory (and included in this document).
• Students may use the computers outside their designated laboratory times provided the
laboratory is open and no other laboratory class is scheduled. If another class is scheduled for
the laboratory, you may enter no earlier than 20 minutes after the scheduled starting time and
ask the supervisor whether any vacant machines may be used.

• Lecture notes and textbook may be needed for reference during the labs.

Plagiarism
When you submit an assessment task, you are declaring the following
1. It is your own work and you did not collaborate with or copy from others.
2. You have read and understand your responsibilities under the University of Wollongong’s
   policy on plagiarism.
3. You have not plagiarised from published work (including the internet). Where you have used
   the work from others, you have referenced it in the text and provided a reference list at the end
   of the assignment.

Students must remember that:
Plagiarism will not be tolerated.
Students are responsible for submitting original work for assessment, without plagiarising or
cheating, abiding by the University’s policies on Plagiarism as set out in the University
Handbook under University Policy Directory and in Faculty handbooks and subject guides.
Plagiarism has led to the expulsion from the University.

Student Academic Grievance Policy
The School aims to provide a fair, equitable and productive learning environment for all its students.
The Student Academic Grievance Policy seeks to support the achievement of this goal by providing a
transparent and consistent process for resolving student academic grievances.

Any student who has a grievance over a result should obtain a Faculty of Informatics Appeal Against
Decision or Action Affecting Academic Experience form from the Informatics Student Enquiry Centre.
(http://www.uow.edu.au/content/groups/public/@web/@inf/@faculty/documents/doc/uow017433.pdf)
The student should firstly take the form to the marker/lecturer to discuss the matter and, if the student is
still not satisfied, s/he should take the next step as outlined on the form.

Once the grievance has been considered by the Faculty, if the student still feels the situation has not
been fully resolved s/he may consult the Dean of Students. However, the Dean of Students can have no
input into the academic judgment of the lecturer and can only review the grievance to ensure proper
procedure has been followed.

Relevant University Policies, procedures and students services:
For more information students must refer to the Faculty handbook, online references or consult the
contains a range of policies on educational issues and student matters.
This subject outline can be found at: http://www.uow.edu.au/informatics/common/UOW030689.html

This outline should be read in conjunction with the following documents:

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<tr>
<th>Code of Practice - Teaching and Assessment</th>
<th>Code of Practice - Students</th>
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<th>Code of Practice-Honours</th>
<th>Acknowledgement Practice Plagiarism will not be tolerated:</th>
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<tr>
<th>Key Dates</th>
<th>Special Consideration Policy:</th>
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<th>Course Progress Policy:</th>
<th>Graduate Qualities Policy:</th>
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<tr>
<th>Academic Grievance Policy (Coursework and honours students)</th>
<th>Non-Discriminatory Language Practice and Presentation</th>
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<tr>
<th>Occupational Health and Safety</th>
<th>Intellectual Property Policy</th>
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<th>Human Research Ethics:</th>
<th>Rules for student conduct and discipline:</th>
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<tr>
<th>Information Literacies Introduction Program</th>
<th>Informatics Faculty Librarian, Ms Annette Meldrum, phone: 4221 4637, email: <a href="mailto:ameldrum@uow.edu.au">ameldrum@uow.edu.au</a></th>
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<tr>
<th>Student Support Services:</th>
<th>SCSSSE Subject Outlines</th>
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<tr>
<th>SCSSE Computer Usage Rules</th>
<th>SCSSE Subject Outlines</th>
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