SCSSE
School of Computer Science & Software Engineering
Faculty of Informatics

CSCI450 Software Requirements and Specifications
Subject Outline
Spring Session 2007

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

GENERAL INFORMATION

Subject Coordinator
Professor Aditya Ghose
Telephone Number: 02 4221 4051
Email: aditya@uow.edu.au
Location: 3.105

Professor Ghose’s Consultation Times During Session
Day
Tuesday
Wednesday
Time
8:30 am - 10:30 am
9:30 am - 10:30 am and 12:30 pm - 1:30 pm

Subject Coordinator
Dr Aneesh Krishna
Telephone Number: 02 4221 4043
Email: aneesh@uow.edu.au
Location: 3.4043

Dr Krishna’s Consultation Times During Session
Day
Tuesday
Thursday
Time
3:00 pm - 5:00 pm
11:30 am - 1.30 pm

Subject Organisation
Session: Spring Session, Wollongong
Credit Points: 6
Contact hours per week: 2hr lectures
Lecture Times & Location: Thu 16:30 18:30 3.121
Tutorial Day, Time and Location can be found at: http://www.uow.edu.au/student/sols/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. Any information posted to the web site is deemed to have been notified to all students.

Content

Software development can be viewed as an activity in which useful things are built to serve recognisable purposes. For software developers, these “useful things” are a special kind of machine known as software systems, and the "purpose" of these machines is to help solve problems in some application domain. This subject emphasises the importance of understanding the application domains that software systems interact with and the problems we try to solve in these domains. The subject focuses on writing explicit and precise descriptions known as:
1. Requirements - descriptions of application domains and the problems to be solved there;
2. Specifications - descriptions of the interface between the machine and the application domain. The subject addresses techniques used to record, elicit, and reason about these descriptions. The subject examines the approach to Requirements and Specification techniques taken by a range of systems engineering methodologies. The concepts of method engineering are introduced and the role of software tools to support this activity is discussed.

**Objectives**

On completion of this subject the student should be able to:
1. describe state of the art techniques of software requirements capture and analysis;
2. explain how software system requirements are translated to appropriate software specifications expressed in a range of different formalisms;
3. demonstrate an ability to interpret a particular set of software requirements and translate into a specification;
4. apply the knowledge and skills presented in this subject to typical software development scenarios encountered in the software industry.

**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.

**Method of Presentation**

Contact hours for this subject comprise 2 hours of lectures.

**Lecture Schedule (subject to variation)**

A proposed Lecture schedule for the subject is as follows:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Assessment Tasks Due</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Subject Introduction. Role of Requirements Engineering in Software Engineering</td>
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<tr>
<td>2</td>
<td>Requirements Analysis</td>
<td></td>
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<tr>
<td>3</td>
<td>Requirements Specifications and Formal Inspections</td>
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<tr>
<td>4</td>
<td>The Feasibility Study and Starting points for elicitation</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Eliciting Requirements and Requirements Modelling</td>
<td>Assignment 1 due</td>
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<tr>
<td>6</td>
<td>Modelling Business Rules &amp; Processes</td>
<td></td>
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<tr>
<td>7</td>
<td>Modelling Enterprises</td>
<td></td>
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<tr>
<td>8</td>
<td>Object Oriented Modelling and Modelling Relationships</td>
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<tr>
<td>9</td>
<td>Modelling System Interactions</td>
<td>Assignment 2 due</td>
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<tr>
<td>10</td>
<td>Formal Specifications</td>
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<tr>
<td>11</td>
<td>R E C E S S</td>
<td></td>
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<tr>
<td>12</td>
<td>Non-Functional Requirements, Verification and Validation</td>
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<tr>
<td>13</td>
<td>Managing Requirements Change, Moving into Design</td>
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<tr>
<td></td>
<td>Subject Revision and Exam preparation</td>
<td>Project due</td>
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**Subject Materials**

**Textbooks:**

There is no compulsory textbook for this subject. However, students will find the following texts useful:

These 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.

**Assessment**

This subject has the following assessment components.

<table>
<thead>
<tr>
<th>Assessment Items &amp; Format</th>
<th>Percentage of Final Mark</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>10%</td>
<td>Hard copy during week 5</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>10%</td>
<td>Hard copy during week 9</td>
</tr>
<tr>
<td>Project</td>
<td>30%</td>
<td>Hard copy during week 13</td>
</tr>
<tr>
<td>Final Exam</td>
<td>50%</td>
<td>Examination Period</td>
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</table>

**Notes on Assessment**

Plagiarism may result in a FAIL grade being recorded for that assignment.

**Submission of Assessment Items**

(1) Each team will submit a single report for each assignment (hardcopy). Assignments must be submitted in person, within ten minutes of the start of the lecture on the specified date.
(2) All submissions must be accompanied by an Assignment Cover Sheet.
(3) No submission will be accepted in electronic form.

**Return of Assessment Items**

Assignments/project report will be available from the subject coordinator after being marked.

**Penalties for late submission of Assessment Items**

Penalties may apply to all late work. 10% will be deducted for each day it is overdue. Any submission submitted more than 4 days after the due date may score 0 (zero) mark. Late submission of assessment item MUST be accompanied by a special consideration application via SOLS.

**Remarks on Assessment**

(1) The assignments are all team assignments (2 to 3 students in one team).
(2) Assignments will assess a student’s understanding of the course material presented during the lectures.
(3) Different team members may receive different marks based on their individual contribution.
(4) The “individual contribution” of each team member will be assessed by all the other team members. Team report form will be provided to students to collect the information about contribution.
(5) Detailed instruction on the content of each assignment will be handed out during the semester. Due dates for the assignments are firm.

Projects will assess a student’s understanding of the course material presented during the lectures (and provided reading material). All work completed in session for the project should be integrated into the final report. Instruction on the content of the project will be handed out during the semester.
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 special consideration in order to complete all assessable work.

The University applies strict criteria to the granting of special consideration. Before applying for special consideration students should carefully read the University’s policy. The policy 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.

Scaling
Final results in this subject may be scaled. The scaling method that will be used in this subject is as follows.
If E is the student exam mark, and A is the student assignment mark, the student final mark will be determined as follows:

if E >= 40% of the maximum exam mark: then student final mark is E + A;
if 35% <= E < 40% of the maximum exam mark: then student final mark is min{(E+A, 47)}
if E < 35% of the maximum exam mark: then student final mark is min{(E+A, 42)}

Additional Information
Students must refer to the Faculty Handbook or online references which contains a range of policies on educational issues and student matters.

Supplementary Exams
Supplementary Exams will be dealt with in accordance with Special 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.

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.
4. Plagiarism will not be tolerated.
5. 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 Calendar under University Policies, 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 or 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 judgement of the lecturer and can only review the grievance to ensure proper procedure has been followed.

For more information, please consult the UOW policy in full at http://www.uow.edu.au/handbook/courserules/studacgrievpol.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>Key Dates</th>
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<tr>
<th>Code of Practice - Students</th>
<th>Information Literacies Introduction Program</th>
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<tr>
<th>Acknowledgement Practice Plagiarism will not be tolerated</th>
<th>Student Support Services:</th>
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<tr>
<th>Acknowledgement Practice Student Equity and Diversity Liaison Officers</th>
<th>Informatics Faculty Librarian, Ms Annette Meldrum, phone: 4221 4637, <a href="mailto:ameldrum@uow.edu.au">ameldrum@uow.edu.au</a></th>
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<tbody>
<tr>
<td>Plagiarism will not be tolerated</td>
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<tr>
<th>Code of Practice-Honours</th>
<th>Intellectual Property Policy</th>
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<th>Non-Discriminatory Language Practice and Presentation</th>
<th>Occupational Health and Safety</th>
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<tr>
<th>SCSSE SISAT Internet Access &amp; Student Resource Centre</th>
<th>SCSSE SISAT Style Guide for Footnotes, Documentation, Essay and Report Writing</th>
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<th>SCSSE SISAT Student Guide</th>
<th>SCSSE SISAT Subject Outlines</th>
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