SCSSE
School of Computer Science and Software Engineering
Faculty of Informatics

CSCI398  Introduction to Enterprise Computing
Subject Outline
Spring Session 2008

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

GENERAL INFORMATION

Subject Coordinator
Professor Neil Gray
Telephone Number: 4221 3812
Email: nabg@uow.edu.au
Location: 3.206

Professor Gray’s consultation times during session:
Day       Time
Tuesday   9.30-11.30
Wednesday 13.30-15.30

Subject Organisation
Session: Spring Session, Wollongong Campus
Credit Points: 6 credit points
Contact hours per week: 3 hours lectures, 2 hours Laboratory
Lecture Times & Location:
Tuesday: 14.30 – 16.30 at 1.G05
Thursday: 10.30 – 11.30 at 19.G016
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
The primary aim of this subject is to equip students with a thorough understanding of the technologies that underlie distributed enterprise systems. The origins of these technologies and the development of container/component models for applications will be explored. The subject will include coverage of remote invocation mechanisms (such as RPC, Java RMI, CORBA, XML/RPC, SOAP, Service Oriented Architectures etc), lifecycle issues (in Java RMI, CORBA, EJB), and supporting services (transactions, automated data persistence, events/messaging, naming, trading, security, and XML-parsing). Students will complete introductory assignments that provide basic experience in a number of these advanced technologies.

Objectives
On successful completion of this subject, students should be able to: 1. Explain how “enterprise systems” have evolved from the use of simple transaction monitors through to the deployment of “application servers” 2. Explain the operations of distributed systems at a generic “object request broker” level covering communications, request dispatching, and lifecycle management issues 3.
Explain the roles of supporting services such as transactions, messaging, naming, and data persistence. 4. Implement distributed applications using a number of these technologies. 5. Use effectively classes from the J2EE packages when building applications. 6. Develop client-server applications with tight binding mechanisms (Java RMI, CORBA, EJB), loosely bound mechanisms (events/messaging), or open integration mechanism (SOAP, SOA etc) 7. Appreciate the new technologies that are being introduced to further extend the scope of distributed enterprise software systems.

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.

Satisfactory attendance is deemed to be attendance at approximately 80%* of the allocated contact hours. Attendance rolls will be kept for lectures, tutorials and laboratories. If you are present for less than 80%* you need to apply for special consideration, otherwise a fail grade will be recorded.

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

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 overview</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Evolving technologies</td>
<td></td>
</tr>
<tr>
<td>3-4</td>
<td>Distributed objects</td>
<td></td>
</tr>
<tr>
<td>5-8</td>
<td>CORBA – a reference model for mechanisms and services</td>
<td></td>
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<tr>
<td>9-11</td>
<td>Application servers – containers and components</td>
<td></td>
</tr>
<tr>
<td>12-13</td>
<td>XML-based technologies</td>
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</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):
Apart from the lectures, the majority of the subject materials are available for download from the Internet. Copies of some standard reference materials, such as the CORBA documentation from the Object Management Group and Sun’s “Enterprise Java” tutorial, are in the /share/cs-pub/398 directory.

There are no “recommended texts”. The Internet is a better source of information – free and more frequently updated. If you are stuck on something, ask Google.

The library does have a number of holdings including:
EJB 3 in action / Debu Panda, Reza Rahman, Derek Lane
Enterprise JavaBeans 3.0 / Bill Burke and Richard Monson-Haefel  
Mastering Enterprise JavaBeans / 3rd ed. / Ed Roman, Rima Patel Sriganesh, Gerald Brose  
Pure Corba / Fintan Bolton  
Enterprise CORBA / Dirk Slama, Jason Garbis, Perry Russell  
Java.rmi: the remote method invocation guide / Esmond Pitt and Kathy McNiff (also as electronic resource)

**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>Assignment-1: object-oriented client server basics</td>
<td>10%</td>
<td>Individual</td>
<td>August 22nd</td>
</tr>
<tr>
<td>Assignment-2: CORBA, lifecycle management and naming services</td>
<td>10%</td>
<td>Individual</td>
<td>September 5th</td>
</tr>
<tr>
<td>Assignment-3: CORBA services</td>
<td>10%</td>
<td>Individual</td>
<td>September 19th</td>
</tr>
<tr>
<td>Assignment-4: EJB</td>
<td>10%</td>
<td>Individual</td>
<td>October 10th</td>
</tr>
<tr>
<td>Assignment-5: XML technologies</td>
<td>10%</td>
<td>Individual</td>
<td>October 24th</td>
</tr>
<tr>
<td>Examination</td>
<td>50%</td>
<td>Individual</td>
<td>Scheduled by university</td>
</tr>
</tbody>
</table>

**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.

The assignments require the preparation of reports containing variously design artifacts, code, evidence for correct operation of code, and other components as specified. These reports are prepared as PDF documents and submitted electronically.

Assignments are submitted electronically using the turnin program on the University’s banshee computer (the main server for CS undergraduate work). Details of the use of turnin are included in the assignments.

**Other Procedures for the submission of assessment items:**
In addition to electronic submission students are required to submit assignments in hard copy to their tutor. All assignments will be returned within 2 weeks of their submission.

To be eligible for a Pass in this subject a student must achieve a mark of at least 20 out of 50 in the 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:**
Marks are posted to the SOLS system. Marker comments will be returned to students via the university’s email system.

**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.

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 UOW policy in full at [http://www.uow.edu.au/handbook/courserules/studagrievpol.html](http://www.uow.edu.au/handbook/courserules/studagrievpol.html) which contains a range of policies on educational issues and student matters.

<table>
<thead>
<tr>
<th>Code of Practice - Teaching and Assessment</th>
<th>Code of Practice - Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code of Practice-Honours</td>
<td>Acknowledgement Practice Plagiarism will not be tolerated:</td>
</tr>
<tr>
<td>Key Dates</td>
<td>Special Consideration Policy:</td>
</tr>
<tr>
<td>Course Progress Policy:</td>
<td>Graduate Qualities Policy:</td>
</tr>
<tr>
<td>Academic Grievance Policy (Coursework and honours students)</td>
<td>Non-Discriminatory Language Practice and Presentation</td>
</tr>
<tr>
<td>Occupational Health and Safety</td>
<td>Intellectual Property Policy</td>
</tr>
<tr>
<td>Human Research Ethics:</td>
<td>Rules for student conduct and discipline:</td>
</tr>
<tr>
<td>Information Literacies Introduction Program</td>
<td>Informatics Faculty Librarian, Ms Annette Meldrum, phone:</td>
</tr>
<tr>
<td>Student Support Services:</td>
<td>SCSE Internet Access &amp; Student Resource Centre</td>
</tr>
<tr>
<td>Informatics Faculty SEDLO (Student Equity and Diversity Liaison Officers) Virginie Schmelitschek, phone 4221 3833, <a href="mailto:virginie@uow.edu.au">virginie@uow.edu.au</a></td>
<td></td>
</tr>
<tr>
<td>SCSE Computer Usage Rules</td>
<td>SCSE Subject Outlines</td>
</tr>
</tbody>
</table>