SISAT
School of Information Systems & Technology
Faculty of Informatics

BUSS215 Information Systems Development II
Subject Outline
Spring Session 2008

Head of School – Associate Professor Peter Hyland, Student Resource Centre, Tel: (02) 4221 3606

GENERAL INFORMATION

Subject Coordinator
Dr Reza Zamani
Telephone Number:
4221 3648
Email:
reza@uow.edu.au
Location:
39.108

Dr Zamani’s consultation times during session:
Day
Monday
10:00-12:00
Wednesday
10:00-12:00

Subject Lecturer:
Dr Chee Fon Chang
Telephone Number:
4221 3698
Email:
cfc@uow.edu.au
Location:
39.212

Dr Chang’s consultation times during session:
Day
Monday
4:30pm – 6:30pm
Tuesday
10:30am – 12:30pm

Subject Organisation
Session:
Spring Session, Wollongong Campus
Credit Points:
6 credit points
Contact hours per week:
2 hours lectures, 2 hours Computer lab
Lecture Times & Location:
13:30 AM – 15:30 PM Wednesday 19-G015
Tutorial Day, Time and Location can be found at:

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 aims to reinforce the principles, techniques and methodologies in the design of software systems using the object-oriented approach. The subject will provide the students with the opportunity to: understand and develop skills in advanced programming techniques and software engineering techniques in business applications; develop programs to satisfy business requirements by utilizing appropriate advanced techniques covered in this subject; solve realistic problems found in the workplace using appropriate techniques for development; broaden the use of Graphical User Interface in various business applications; further develop programming skills and good coding style with emphasis on modularisation; further develop skills and competency in the design and implementation of object-oriented software systems.

Subject Objectives
On successful completion of this subject, students should be able to: describe the object-oriented paradigm and focus on how objects are declared, defined, used and organised into a coherent program design in an object-oriented programming environment; demonstrate an understanding and appreciation of the concepts of a well structured solution and good coding style within an object-oriented programming environment; define and use object-oriented programming concepts including inheritance, encapsulation, construction, access control, overloading and messaging in software design; define, construct and use objects of their own as building blocks in program development; write business standard object-oriented programs using advanced programming and software engineering techniques and write correct and maintainable object-oriented programs using an object-oriented programming language.

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.

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

Also participation in weekly labs is essential to learning in this subject. There are 11 weekly labs, starting from week 2 and ending in week 12.
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>Overview on Thinking in terms of Objects</td>
<td>Chapter 1</td>
</tr>
<tr>
<td>2</td>
<td>Principals, Techniques, and Methodologies of Object Oriented Design</td>
<td>Chapter 2</td>
</tr>
<tr>
<td>3</td>
<td>From Design To Implementation in C#</td>
<td>Chapter 3</td>
</tr>
<tr>
<td>4</td>
<td>Basics and Advances in Class Construction</td>
<td>Chapters 4 &amp; 5</td>
</tr>
<tr>
<td>5</td>
<td>Discussing Refractor Operations &amp; Understanding Objects in Spreadsheets</td>
<td>Chapter 6</td>
</tr>
<tr>
<td>6</td>
<td>Discussing Filters, Pivots, Conditional Formatting as powerful pieces of design and Examining the Hierarchy of Objects in Spreadsheets and programming with VBA</td>
<td><a href="http://msdn.microsoft.com">http://msdn.microsoft.com</a> and VBA documents</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="http://www.vbtutor.net/VBA/vba_tutorial.html">http://www.vbtutor.net/VBA/vba_tutorial.html</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="http://www.functionx.com/vbaexcel">www.functionx.com/vbaexcel</a></td>
</tr>
<tr>
<td>8</td>
<td>Programming with Threads in C#</td>
<td>Chapter 7</td>
</tr>
<tr>
<td>9</td>
<td>Delegates</td>
<td>Chapter 8</td>
</tr>
<tr>
<td>10</td>
<td>Event Handling in C#</td>
<td>Chapter 9</td>
</tr>
<tr>
<td>11</td>
<td>Advanced Graphical User Interface Construction (Drawing Graphs on the Screen)</td>
<td>Chapter 10</td>
</tr>
<tr>
<td>12</td>
<td>Advances in Collections and Serialization</td>
<td>Chapter 14</td>
</tr>
<tr>
<td>13</td>
<td>Review</td>
<td></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.

**Note: This program is subject to change based on the progress of the class**

**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:**


Hansen, Steve “Mastering Excel 2003 Programming with VBA”, San Francisco Calif


http://msdn.microsoft.com


http://www.vbtutor.net/VBA/vba_tutorial.html


www.functionx.com/vbaexcel
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>Assessment 1: Minor 1</td>
<td>3%</td>
<td>INDIVIDUAL</td>
<td>Posted on the e-learning space in Week 2 and Due in Week 3 in the computer lab</td>
</tr>
<tr>
<td>Assessment 2: Minor 2</td>
<td>3%</td>
<td>INDIVIDUAL</td>
<td>Posted on the e-learning space in Week 3 and Due in Week 4 in the computer lab</td>
</tr>
<tr>
<td>Assessment 3: Minor 3</td>
<td>3%</td>
<td>INDIVIDUAL</td>
<td>Posted on the e-learning space in Week 4 and Due in Week 5 in the computer lab</td>
</tr>
<tr>
<td>Assessment 4: Minor 4</td>
<td>3%</td>
<td>INDIVIDUAL</td>
<td>Posted on the e-learning space in Week 5 and Due in Week 6 in the computer lab</td>
</tr>
<tr>
<td>Assessment 5: Minor 5</td>
<td>3%</td>
<td>INDIVIDUAL</td>
<td>Posted on the e-learning space in Week 6 and Due in Week 7 in the computer lab</td>
</tr>
<tr>
<td>Assessment 6: Minor 6</td>
<td>3%</td>
<td>INDIVIDUAL</td>
<td>Posted on the e-learning space in Week 7 and Due in Week 8 in the computer lab</td>
</tr>
<tr>
<td>Assessment 7: Major 1</td>
<td>15%</td>
<td>INDIVIDUAL</td>
<td>Posted on the e-learning space in Week 8 and Due in Week 11 in the computer lab</td>
</tr>
<tr>
<td>Assessment 8: Minor 7</td>
<td>3%</td>
<td>INDIVIDUAL</td>
<td>Posted on the e-learning space in Week 11 and Due in Week 12 in the computer lab</td>
</tr>
<tr>
<td>Final Examination</td>
<td>64%</td>
<td>INDIVIDUAL</td>
<td>The final examination date will be confirmed during the course of the subject and published on SOLS 3 to 4 weeks before the examination period.</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.

Assessments should be submitted in the computer labs.

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.
Weighting: 3%
Due date  Posted on the e-learning space in Week 3 and Due in Week 4 in the computer lab

Assessment 3:  Minor 3
Topic1  Queuing
Topic2  C# Programming
Marking criteria  The same as the assessment 1.
Length:  About 100 lines of simple programming code
Weighting: 3%
Due date  Posted on the e-learning space in Week 4 and Due in Week 5 in the computer lab

Assessment 4:  Minor 4
Topic1  Systems Simulation
Topic2  C# Programming
Marking criteria  The same as the assessment 1.
Length:  About 100 lines of programming code with intermediate level of complexity
Weighting: 3%
Due date  Posted on the e-learning space in Week 5 and Due in Week 6 in the computer lab

Assessment 5:  Minor 5
Topic1  Racing
Topic2  C# Programming
Marking criteria  The same as the assessment 1.
Length:  About 100 lines of simple programming code
Weighting: 3%
Due date  Posted on the e-learning space in Week 6 and Due in Week 7 in the computer lab

Assessment 6:  Minor 6
Topic1  Manipulating Objects
Topic2  VBA Programming
Marking criteria  The same as the assessment 1.
Length:  About 100 lines of simple programming code
Weighting: 3%
Due date  Posted on the e-learning space in Week 7 and Due in Week 8 in the computer lab

Assessment 7:  Major 1
Topic1  Advanced codes (Both in C# and VBA)
Topic2  Programming (Both in C# and VBA)
Marking criteria  This assignment includes 6 Tasks. The 15 marks of the assignment have been distributed as follows:
Length:  About 400 lines of programming code with different levels of complexity
Weighting: 15%
Due date  Posted on the e-learning space in Week 8 and Due in Week 11 in the computer lab

Assessment 8:  Minor 7
Topic1  An integrated Application
Topic2  Programming (Both in C# and VBA)
Marking criteria

<table>
<thead>
<tr>
<th>Marking criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper answering to your tutor questions</td>
<td>1 mark</td>
</tr>
<tr>
<td>about the assignment in the computer lab</td>
<td></td>
</tr>
<tr>
<td>Completeness and Readability of the</td>
<td>1 mark</td>
</tr>
<tr>
<td>Programs</td>
<td></td>
</tr>
<tr>
<td>Efficiency of the Programs</td>
<td>1 mark</td>
</tr>
</tbody>
</table>

Length: About 100 lines of simple programming code

Due date: Posted on the e-learning space in Week 11 and Due in Week 12 in the computer lab

Examinations

<table>
<thead>
<tr>
<th>Final Examination</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>64%</td>
</tr>
</tbody>
</table>

Time allowed:
The examination will be of three hours (3 hrs plus 15 minutes of reading time) duration.

Structure of paper:
Programming codes with long & short answer + short pseudo codes

Procedures for the return of assessment items:
Marks will be awarded during the lab times and will be based on correctness and a verbal test of your understanding. The tutors and lab assistants will award a mark for the lab. Understanding may also be determined by requesting you to modify your work.

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 which contains a range of policies on educational issues and student matters.
<table>
<thead>
<tr>
<th>Code of Practice-Honours</th>
<th>Acknowledgement Practice</th>
<th>Key Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Progress Policy:</td>
<td></td>
<td>Course Progress Policy:</td>
</tr>
<tr>
<td>Academic Grievance Policy (Coursework and honours students)</td>
<td></td>
<td>Special Consideration Policy:</td>
</tr>
<tr>
<td>Occupational Health and Safety</td>
<td></td>
<td>Graduate Qualities Policy:</td>
</tr>
<tr>
<td>Human Research Ethics:</td>
<td></td>
<td>Non-Discriminatory Language Practice and Presentation</td>
</tr>
<tr>
<td>Information Literacies Introduction Program</td>
<td></td>
<td>Intellectual Property Policy</td>
</tr>
<tr>
<td>Student Support Services:</td>
<td></td>
<td>Rules for student conduct and discipline:</td>
</tr>
<tr>
<td>SCSSE SISAT Computer Usage Rules</td>
<td></td>
<td>Informatics Faculty Librarian, Ms Annette Meldrum, phone: 4221 4637, email: <a href="mailto:ameldrum@uow.edu.au">ameldrum@uow.edu.au</a></td>
</tr>
</tbody>
</table>