Course Specification

Description: Component Based Software Development

<table>
<thead>
<tr>
<th>Subject</th>
<th>Cat-Nbr</th>
<th>Class</th>
<th>Term</th>
<th>Mode</th>
<th>Units</th>
<th>Campus</th>
</tr>
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<tbody>
<tr>
<td>CIS</td>
<td>8011</td>
<td>24718</td>
<td>2, 2003</td>
<td>EXT</td>
<td>1.00</td>
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Academic Group: FOBUS
Academic Org: FOB005
HECS Band: 2
ASCED Code: 020399

STAFFING
Examiner: Mark Toleman
Moderator: Dave Roberts

PRE-REQUISITES
Pre-requisite: CIS5001

RATIONALE
Component Based Software Development is becoming mainstream software development approach. Nowadays, organisations are increasingly adopting component based software development technologies in information systems development. This course will provide a grounding in the theory and practice of the component based software development approach and will discuss its strengths and weaknesses.

SYNOPSIS
Students will gain an understanding of the fundamental principles of the component based software development paradigm. Students will understand the relevance and importance of component based software development in today's information systems building. Students will learn about the latest component based analysis and design techniques as well as current component based technologies. Student will learn how to identify and assess opportunities for effective component building in the construction of information systems.

OBJECTIVES
On successful completion of this course, students will be able to:

- demonstrate a sound understanding of the fundamental principles underlying Component Based Software Development and its relevance and importance in today's information software development environment, including its strengths and weaknesses.
• analyse business system in terms of 'components' and arrive at feasible component design, providing scope for maximum component reuse.
• demonstrate an ability to learn about current component based analysis and design techniques and have an appreciation for the latest component based architectures such as COM, DCOM and Java Beans.
• demonstrate a clear understanding how the Component Based Software Development approach relates to other key software development methodologies and appreciate the project management, legal and ethical issues revolving around Component Based Software projects.

TOPICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. Introduction to Component-Based Software Development</td>
<td>10.00</td>
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<tr>
<td>2. Component-Based Software Development Principles</td>
<td>10.00</td>
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<tr>
<td>3. Component-Based Information System Development</td>
<td>10.00</td>
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<tr>
<td>4. Component-Based System Analysis</td>
<td>10.00</td>
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<tr>
<td>5. Component-Based System Design</td>
<td>10.00</td>
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<tr>
<td>6. Component-Based System Programming</td>
<td>10.00</td>
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<tr>
<td>7. Component-Based System Modelling</td>
<td>10.00</td>
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<tr>
<td>8. Component-Based Reuse</td>
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<tr>
<td>9. Component-Based Project Management</td>
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<tr>
<td>10. Component-Based Legal and Regulatory Issues</td>
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</table>

TEXT and MATERIALS required to be PURCHASED or ACCESSED:

Books can be ordered by fax or telephone. For costs and further details use the 'Book Search' facility at http://bookshop.usq.edu.au by entering the author or title of the text.


REFERENCE MATERIALS

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.


(revised edition)


**STUDENT WORKLOAD REQUIREMENTS**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>40</td>
</tr>
<tr>
<td>Directed Study</td>
<td>42</td>
</tr>
<tr>
<td>Private Study</td>
<td>90</td>
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</table>

**ASSESSMENT DETAILS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks Out of</th>
<th>Wtg(%)</th>
<th>Required</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>ASSIGNMENT 1</td>
<td>100.00</td>
<td>10.00</td>
<td>Y</td>
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<td>ASSIGNMENT 2</td>
<td>100.00</td>
<td>30.00</td>
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<td>3 HOUR EXAMINATION</td>
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<td>60.00</td>
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</table>

(see note )

**NOTES:**

The examination is scheduled to be held in the end-of-semester examination period. Students will be advised of the official examination date after the timetable has been finalised.

**IMPORTANT ASSESSMENT INFORMATION**

1 Attendance requirements:

   If you are an International student in Australia it is a requirement of your student visa that you attend all classes at your campus. For all other students, there are no attendance requirements for this course. However, it is the students' responsibility to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration.

2 Requirements for students to complete each assessment item satisfactorily:

   To complete the assignments satisfactorily, students must obtain at least 50% of the marks available for the assignments in aggregate. To complete the examination
satisfactorily, students must obtain at least 50% of the marks available for the examination.

3 Penalties for late submission of required work:
If students submit assignments after the due date without prior approval then a penalty of 20% of the total marks available for the assignment may apply for each working day late.

4 Requirements for student to be awarded a passing grade in the course:
To be assured of receiving a passing grade a student must attempt all of the summative assessment items, achieve an aggregated mark of at least 50% in the total marks allocated for the assignments, achieve at least 50% in the examination, and at least 50% of the available weighted marks for the summative assessment items.

5 Method used to combine assessment results to attain final grade:
The final grades for students will be assigned on the basis of the weighted aggregate of the marks (or grades) obtained for each of the summative assessment items in the course.

6 Examination information:
This is a restricted examination. Candidates are allowed access to specific materials during the examination. The only materials that candidates may use in the examination for this course are (i) Writing materials: non-electronic and free from material which could give the student an unfair advantage in the examination; (ii) Translation dictionaries: with the Examiner's approval, candidates may, take an appropriate non-electronic translation dictionary into the examination. This will be subject to perusal and, if it is found to contain annotations or markings that could give the candidate an unfair advantage, it may be removed from the candidate's possession until the appropriate disciplinary action is completed.

7 Examination period when Deferred/Supplementary examinations will be held:
Any Deferred or Supplementary examinations for this course will be held during the next examination period.

8 University Regulations:
Students should read USQ Regulations 5.1 Definitions, 5.6 Assessment, and 5.10 Academic Misconduct for further information and to avoid actions which might contravene University Regulations. These regulations can be found at the URL: http://www.usq.edu.au/SECARIAT/calendar/Part5/ or in the printed version of the current USQ Handbook. Students should also read The Guide to Policies and Procedures of the Faculty which can be found at the URL: http://www.usq.edu.au/handbook/2003/title663.html or in the printed version of the current USQ Handbook.

ASSESSMENT NOTES

1 Assignments: (i) The due date for an assignment is the date by which a student must despatch the assignment to the USQ. The onus is on the student to provide proof of the despatch date, if requested by the Examiner. (ii) Students must retain a copy of each item submitted for assessment. This must be produced within five days if required by the Examiner. (iii) The Examiner may grant an extension of the due date of an assignment in extenuating circumstances. Students may apply
for an extension through the DEC before the due date or by including an application with the submitted assignment after the due date. Such applications should be in writing and include supporting documentary evidence. The authority for granting extensions rests with the relevant Examiner. (iv) The Examiner will normally only accept assessments that have been written, typed or printed on paper-based media. (v) Students who do not have regular access to postal services or who are otherwise disadvantaged by these regulations may be given special consideration. They should contact the Examiner to negotiate such special arrangements. (vi) In the event that a due date for an assignment falls on a local public holiday in their area, such as a Show holiday, the due date for the assignment will be the next day. Students are to note on the assignment cover the date of the public holiday for the Examiner's convenience.

2 Course Weightings: Course weightings of topics should not be interpreted as applying to the number of marks allocated to questions testing those topics in an examination paper.

3 Guidelines for Assignments: Unless otherwise directed by the Examiner, all written and oral assignments submitted by students must conform to the guidelines laid out in the 'Communication skills handbook: How to succeed in written and oral communication'. Any work not prepared in accordance with these guidelines may be subject to penalty or requirement for resubmission.

4 Make-up Work: Students who have undertaken all of the required assessments in a course but who have failed to meet some of the specified objectives of a course within the normally prescribed time may be awarded the temporary grade: IM (Incomplete - Make up). An IM grade will only be awarded when, in the opinion of the Examiner, a student will be able to achieve the remaining objectives of the course after a period of non-directed personal study.

5 Deferred Work: Students who, for medical, family/personal, or employment-related reasons, are unable to complete an assignment or to sit for an examination at the scheduled time may apply to defer an assessment in a course. Such a request must be accompanied by appropriate supporting documentation. One of the following temporary grades may be awarded: IDS (Incomplete - Deferred Examination); IDM (Incomplete Deferred Make-up); IDB (Incomplete - Both Deferred Examination and Deferred Make-up).

OTHER REQUIREMENTS

1 E-mail and Internet Access: Students will require access to e-mail and Internet access to USQConnect for this course.