Description: Component Based Software Development

Subject | Cat-nbr | Class | Term | Mode | Units | Campus  
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CIS  | 8011 | 45300 | 2, 2005 | ONC | 1.00 | Toowoomba  

Academic group: FOBUS  
Academic org: FOB005  
Student contribution band: 2  
ASCED code: 020399

STAFFING

Examiner: Mark Toleman  
Moderator: Abdul Hafeez-Baig

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:

1. 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.
2. analyse business system in terms of 'components' and arrive at feasible component design, providing scope for maximum component reuse.
3. 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.
4. 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>Weighting (%)</th>
<th>Description</th>
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<tbody>
<tr>
<td>10.00</td>
<td>Introduction to Component-Based Software Development</td>
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<tr>
<td>10.00</td>
<td>Component-Based Software Development Principles</td>
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<tr>
<td>10.00</td>
<td>Component-Based Information System Development</td>
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<td>10.00</td>
<td>Component-Based System Analysis</td>
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<td>10.00</td>
<td>Component-Based System Design</td>
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<td>10.00</td>
<td>Component-Based System Programming</td>
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<td>10.00</td>
<td>Component-Based System Modelling</td>
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<td>10.00</td>
<td>Component-Based Reuse</td>
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<tr>
<td>10.00</td>
<td>Component-Based Project Management</td>
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<tr>
<td>10.00</td>
<td>Component-Based Legal and Regulatory Issues</td>
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</tbody>
</table>

**TEXT and MATERIALS required to be PURCHASED or ACCESSED**

ALL textbooks and materials are available for purchase from USQ BOOKSHOP (unless otherwise stated). Orders may be placed via secure internet, free fax 1800642453, phone 07 46312742 (within Australia), or mail. Overseas students should fax +61 7 46311743, or phone +61 7 46312742. For costs, further details, and internet ordering, use the 'Textbook Search' facility at http://bookshop.usq.edu.au click 'Semester', then enter your 'Course Code' (no spaces).

CIS8011 study package available from the USQ Bookshop.


**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 & updated edition)


**STUDENT WORKLOAD REQUIREMENTS**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>Assessment</td>
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<td>Directed Study</td>
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<td>Private Study</td>
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**ASSESSMENT DETAILS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks out of</th>
<th>Wtg(%)</th>
<th>Due date</th>
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<tbody>
<tr>
<td>ASSIGNMENT 1</td>
<td>100.00</td>
<td>10.00</td>
<td>31 Aug 2005</td>
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<tr>
<td>ASSIGNMENT 2</td>
<td>100.00</td>
<td>30.00</td>
<td>05 Oct 2005</td>
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<td>3 HOUR EXAMINATION</td>
<td>100.00</td>
<td>60.00</td>
<td>END S2 (see note 1)</td>
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</table>

**NOTES**

1. 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:
   It is the students' responsibility to attend and participate appropriately in all activities (such as lectures, tutorials, laboratories and practical work) scheduled for them, and 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/corporateservices/calendar/part5.htm. Students should also read the Faculty of Business Guide to Policies and Procedures of the Faculty which can be found at the URL http://www.usq.edu.au/handbook/current/buspolproc.html.

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) If requested, students will be required to provide a copy of an assignment submitted for assessment purposes. This should be despatched to the USQ within 24 hours of receipt of a request being made. (iii) The Examiner may grant an extension of the due date of an assignment in extenuating circumstances. Students may apply for an extension before the due date or include 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) 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 Learning Resources: Prescribed text and materials (see above); prescribed reference materials (see above); printed Introductory Book*, Study Book/s*, and Book/s of Selected Readings*; and course Website accessible via USQConnect. *part of the study package available from the USQ Bookshop.

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