Description: Networks and Distributed Systems

<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>
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<tr>
<td>CIS</td>
<td>3003</td>
<td>20674</td>
<td>1, 2003</td>
<td>EXT</td>
<td>1.00</td>
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Academic Group: FOBUS
Academic Org: FOB005
HECS Band: 2
ASCED Code: 020113

STAFFING
Examiner: Srecko Howard
Moderator: Peter Byrnes

PRE-REQUISITES
Pre-requisite: CIS2000

RATIONALE
The climate of rapid technological change which characterises modern society and the
desire for increased efficiency and effective decision making in today's business has resulted
in enterprise information systems and inter-organisational systems being brought into sharp
focus for information systems professionals. Data networks, interoperability and distributed
systems philosophies are key components in the delivery of such systems. Therefore it is
vital that they form an integral part of all contemporary information systems design and
not simply an afterthought at the implementation stage.

SYNOPSIS
This course seeks to broaden the student's knowledge of telecommunications and networking
fundamentals and to provide a greater depth of understanding of networking concepts
introduced earlier in the course. In addition, the student will expand upon their knowledge
of distributed systems models and concepts. Finally, the student will be provided with the
opportunity to combine their knowledge of networking fundamentals and distributed systems
to provide tailored solutions for contemporary business problems.

OBJECTIVES
Successful completion of this course will enable students to:

- review applicable concepts and techniques learned earlier in the course and integrate
  these ideas with the concepts and approaches developed in this course.
demonstrate an understanding of telecommunications fundamentals.

demonstrate an understanding of local area network architectures.

demonstrate an understanding of metropolitan and wide area network architectures.

discuss and provide solutions for interconnectivity problems.

demonstrate a basic understanding of the various problems associated with the management of networks.

demonstrate an understanding of Open Systems and contemporary Distributed Systems models and concepts.

given a specific business problem, design and justify a suitable networked solution using sound arguments expressed in either spoken or written forms as required.

**TOPICS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. Review of applicable concepts and techniques from earlier courses</td>
<td>10.00</td>
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<tr>
<td>2. Network mechanisms</td>
<td>10.00</td>
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<tr>
<td>3. Network architectures</td>
<td>15.00</td>
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<tr>
<td>4. Network design methodologies</td>
<td>25.00</td>
</tr>
<tr>
<td>5. Business applications and distributed systems issues</td>
<td>30.00</td>
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<tr>
<td>6. Network management fundamentals</td>
<td>10.00</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.


**STUDENT WORKLOAD REQUIREMENTS**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directed Study</td>
<td>170</td>
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**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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<tr>
<td>ASSIGNMENT 1</td>
<td>100.00</td>
<td>10.00</td>
<td>Y</td>
<td>02 May 2003</td>
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<tr>
<td>ASSIGNMENT 2</td>
<td>100.00</td>
<td>20.00</td>
<td>Y</td>
<td>13 Jun 2003</td>
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<tr>
<td>EXAMINATION 3 HOURS</td>
<td>100.00</td>
<td>70.00</td>
<td>Y</td>
<td>END S1</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 gained by the student for the assignment will
   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:
   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 Referencing in 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).

6 Appeals: Any appeal against the award of a grade in the course will be conducted
in accordance with University Regulations. These Regulations are published in the
University Handbook.

OTHER REQUIREMENTS

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