Description: Computer Communication and Internetworking

<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>CSC</td>
<td>3407</td>
<td>70110</td>
<td>3, 2007</td>
<td>EXT</td>
<td>1.00</td>
<td>Toowoomba</td>
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Academic group: FOSCI
Academic org: FOS003
Student contribution band: 2
ASCED code: 020113

STAFFING
Examiner: Jamie Shield
Moderator: Yan Li

RATIONALE
Explosive growth in computer networks in the last several decades has changed the uses of computers dramatically. The largest computer network, the Internet, is now connecting millions of computers in the world, providing services like email, file transfer, hypermedia information retrieval across all kinds of different platforms. This course is the introductory course in computer networking. It concentrates on basic concepts and protocols of computer networks. This course serves as a foundation for all further courses in computer networking program.

SYNOPSIS
This course addresses the layered structure of computer communication networks. It focuses on networking basics, routers and routing basics and the most widely used TCP/IP protocol suite. After this course, the students will have not only general knowledge about computer networks but also the understanding and practical skills of cabling and managing routers and TCP/IP Internetworking.

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

1. demonstrate an Understand Networking Basics (Assignment 1 and exam)
2. perform Cable Testing and cabling LAN and WAN (Assignment 1 and exam)
3. demonstrate an Understanding of Ethernet Fundamentals (Assignment 1 and exam)
4. illustrate TCP/IP Protocol Suite and Subnetting (Assignment 1 & 2 and exam)
5. manage and configure Cisco Routers (Assignment 2 and exam)
6. explain Routing and Routing Protocols (Assignment 2 and exam)
<table>
<thead>
<tr>
<th>TOPICS</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. Network terminologies, protocols and standards</td>
<td>10.00</td>
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<tr>
<td>2. Fundamentals of local-area networks (LANs) and wide-area networks (WANs)</td>
<td>10.00</td>
</tr>
<tr>
<td>3. Cabling and Cabling Tests</td>
<td>10.00</td>
</tr>
<tr>
<td>4. Routers and Router Programming</td>
<td>20.00</td>
</tr>
<tr>
<td>5. Ethernet</td>
<td>12.00</td>
</tr>
<tr>
<td>6. TCP/IP Protocol Suite and Subnetting</td>
<td>23.00</td>
</tr>
<tr>
<td>7. Routing and Routing Protocols</td>
<td>15.00</td>
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</table>

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

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).

A shrink-wrapped version a value pack (at price of $79.95) of the two Companion Guide books if it is available.


**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>
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<tbody>
<tr>
<td>Directed Study</td>
<td>65.00</td>
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<tr>
<td>Examinations</td>
<td>2.00</td>
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<tr>
<td>Private Study</td>
<td>107.00</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>20.00</td>
<td>05 Jan 2008</td>
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<tr>
<td>ASSIGNMENT 2</td>
<td>100.00</td>
<td>20.00</td>
<td>02 Feb 2008</td>
</tr>
<tr>
<td>2 HOUR CLOSED EXAMINATION</td>
<td>100.00</td>
<td>60.00</td>
<td>END S3</td>
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<td>(see note 1)</td>
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NOTES

1. Examination dates will be available during the semester. Please refer to the examination timetable when published.

IMPORTANT ASSESSMENT INFORMATION

1 Attendance requirements:
   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 each of the assessment items satisfactorily, students must obtain at least 50% of the marks available for each assessment item.

3 Penalties for late submission of required work:
   If students submit assignments after the due date without prior approval then a penalty of 10% 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 a passing grade, students must demonstrate, via the summative assessment items, that they have achieved the required minimum standards in relation to the objectives of the course by obtaining at least 50% of the total weighted marks available for the examination and each assignment.

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

6 Examination information:
   In a Closed Examination, candidates are allowed to bring only writing and drawing instruments into the examination.

7 Examination period when Deferred/Supplementary examinations will be held:
   Any Deferred or Supplementary examinations for this course will be held during the examination period at the end of the semester of the next offering of this course.
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 or in the current USQ
   Handbook.

ASSESSMENT NOTES

9 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.

10 In accordance with University policy, the Examiner may grant an extension of the due
    date of an assignment in extenuating circumstances

11 The Faculty will NOT accept submission of assignments by facsimile.

12 In the event that a due date for an assignment falls on a local public holiday in their areas,
    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.

13 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.

OTHER REQUIREMENTS

1 Students will require to access e-mail and the Internet.