Table of Contents

1. Subject Coordinator ........................................................................................................ 2
2. Teaching Staff .................................................................................................................. 2
3. Subject General Information .......................................................................................... 2
4. Subject Description ......................................................................................................... 2
5. Subject Objectives .......................................................................................................... 2
6. Graduate Attributes ........................................................................................................ 2
7. Attendance Requirements and Timetable ..................................................................... 3
8. Major Texts and References ........................................................................................... 3
9. Required Materials .......................................................................................................... 3
10. Subject Website ............................................................................................................. 3
11. Assessment Task List .................................................................................................... 4
12. Assessment Task Details ............................................................................................. 6
13. Extensions for Written Work/Academic Consideration ............................................. 6
14. Return and Retention of Assessed Materials ............................................................. 7
15. Plagiarism ...................................................................................................................... 7
16. Grievance Procedures .................................................................................................. 7
17. School Policies ............................................................................................................. 7
18. University Codes of Practice, Rules and Guidelines ................................................... 8
1. Subject Coordinator

**Associate Professor Golshah Naghdy**  
Room: 35.G39  
Tel: 4221 3411  
Email: golshah@uow.edu.au

Consultation Times: Mondays 1530-1730 and Wednesdays 0930-1130. Students are advised to use email to make appointments.

2. Teaching Staff

**Dr Montse Ros**  
Room: 35.G26  
Tel: 4221 3133  
Email: montse@uow.edu.au

Consultation Times: Tuesdays and Thursdays 0930-1130. Students are advised to use email to make appointments.

3. Subject General Information

**Equivalence:** ECTE233.

4. Subject Description

Topics covered in this subject include: combinational logic; simplification of logic expressions, Karnaugh maps; sequential logic, flip-flops, registers, clock, timing and synchronisation problems; sequential machines, Mealy and Moore machines, timing diagrams and state tables; and programmable logic array and programmable logic controllers.

5. Subject Objectives

On successful completion of this subject students should be able to:
(a) analyse simple combinational and sequential circuits;
(b) design a combinational circuit with a minimum of hardware using standard SSI and MSI integrated circuits;
(c) design a synchronous sequential circuit with a small number of states and inputs using standard SSI and MSI integrated circuits; and
(d) demonstrate appropriate laboratory skills.

6. Graduate Attributes

Students will acquire the following statistical, information, computer and academic literacy as a result of explicit teaching/learning activities in this subject:

(a) observe, describe, document, interpret, make decisions; critically consume and evaluate information. [Graduate Attribute 1/Generic Attribute (i)]

(b) explore issues with existing knowledge, including written and oral analysis; understand principles, laws and formulae to use knowledge to solve academic problems; understand not only the theory of the discipline by also the practical implications and applications of the acquired knowledge. [Graduate Attribute 2/Generic Attributes (c) and (h)]

(c) use all forms of expression to communicate knowledge to others – spoken, written, graphic and other non-verbal forms appropriate to context; formulate clear concise questions based on information needs; appreciate the need for maintaining records. [Graduate Attribute 3/Generic Attribute (b)]

(d) interact effectively with other people on a one to one basis and in groups to achieve a shared goal; engages in and receives constructive criticism and argument. [Graduate Attribute 4/Generic Attribute (f)]
(e) critically evaluate information sources; identify, respond to and devise solutions to problems; understand basic design problems and utilise a variety of methods in their solution; use knowledge of basic science and engineering fundamentals to develop a command of existing knowledge within a chosen discipline. [Graduate Attribute 5/Generic Attributes (a), (d) and (e)]

(f) is information literate, ie. has the ability to access, locate, critically analyse, interpret, evaluate and use information; is computer literate, ie. has the ability to use effectively a personal computer, associated peripherals and generic software to find, store, retrieve and manipulate data. [Graduate Attribute 7]

(g) identify, respond to and devise solutions to problems; identify ethical dimensions of a problem or issue. [Graduate Attribute].

7. Attendance Requirements and Timetable

In accordance with the University Code of Practice – Students, students should attend all lectures, tutorials and practicals associated with this subject.

This subject consists of:

**Autumn Session:** 2 hours lectures, 1 hour tutorial weekly and 3 hours practical fortnightly

The timetable for this subject is available on SOLS.

8. Major Texts and References

Students are recommended to read the following:

**Text**


**Reference Books**


**Recommended Reading**


*Note: This is not an exhaustive list.*

9. Required Materials

Students are required to purchase a Laboratory Logbook. This is a hardcover, bound book with no loose sheets.

Students are required to obtain a Laboratory kit. To obtain the kit, students need to pay a $10 deposit to the Student enquiry office in Building 3. This deposit is refunded if the kit is returned at the end of the session in good condition. Students may also opt to keep the kit if they desire.

The kits will be available to be picked up from the SECTE stores office 35/132a between 10am-12.30pm and from 1pm till 2pm Mondays to Fridays or they can be also picked up from the Store person in building 3 between 9am and 4pm.

Students will be advised of any further requirements.

10. Subject Website

The subject has an online support site which will be used for delivery of course material and online assessment. This can be accessed via SOLS.
11. Assessment Task List

In addition to the information below, students are advised that School Policies relevant to the assessment of this subject are available on-line on the School webpage under information for Current Students.

Students are advised to access this information immediately. Hard copies are available from the School Office (35.G43) on request.

**Autumn Session**

<table>
<thead>
<tr>
<th>TASK 1</th>
<th>Task Title: Web Practical Quiz 1</th>
<th>Value of Task: 1.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Due Date: Available from 8:30 pm Friday week 3 to 10:00 pm Sunday Week 4</td>
<td>Penalty for Late Submission: 0 mark</td>
</tr>
<tr>
<td></td>
<td>Method of Submission: e-learning space</td>
<td>Details (Length/Style/Format): 30 minutes /multiple choice questions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TASK 2</th>
<th>Task Title: Web Practical Quiz 2</th>
<th>Value of Task: 1.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Due Date: Available from 8:30 pm Friday week 5 to 10:00 pm Sunday Week 6</td>
<td>Penalty for Late Submission: 0 mark</td>
</tr>
<tr>
<td></td>
<td>Method of Submission: e-learning space</td>
<td>Details (Length/Style/Format): 30 minutes /multiple choice questions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TASK 3</th>
<th>Task Title: Web Practical Quiz 3</th>
<th>Value of Task: 1.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Due Date: Available from 8:30 pm Friday week 7 to 10:00 pm Sunday Week 8</td>
<td>Penalty for Late Submission: 0 mark</td>
</tr>
<tr>
<td></td>
<td>Method of Submission: e-learning space</td>
<td>Details (Length/Style/Format): 30 minutes /multiple choice questions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TASK 4</th>
<th>Task Title: Web Practical Quiz 4</th>
<th>Value of Task: 1.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Due Date: Available from 8:30 pm Friday week 9 to 10:00 pm Sunday Week 10</td>
<td>Penalty for Late Submission: 0 mark</td>
</tr>
<tr>
<td></td>
<td>Method of Submission: e-learning space</td>
<td>Details (Length/Style/Format): 30 minutes /multiple choice questions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TASK 5</th>
<th>Task Title: Web Practical Quiz 5</th>
<th>Value of Task: 1.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Due Date: Available from 8:30 pm Friday week 11 to 10:00 pm Sunday Week 12</td>
<td>Penalty for Late Submission: 0 mark</td>
</tr>
<tr>
<td></td>
<td>Method of Submission: e-learning space</td>
<td>Details (Length/Style/Format): 30 minutes /multiple choice questions</td>
</tr>
<tr>
<td>TASK 6</td>
<td>TASK 7</td>
<td>TASK 8</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>----------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td><strong>Task Title:</strong> Web Practical Quiz 6</td>
<td><strong>Task Title:</strong> Tutorial Quiz 1</td>
<td><strong>Task Title:</strong> Tutorial Quiz 2</td>
</tr>
<tr>
<td><strong>Value of Task:</strong> 1.5%</td>
<td><strong>Value of Task:</strong> 1.5%</td>
<td><strong>Value of Task:</strong> 1.5%</td>
</tr>
<tr>
<td><strong>Due Date:</strong> Available from 8:30 pm Friday week 13 to 10:00 pm Sunday Week 14</td>
<td><strong>Due Date:</strong> Week 3</td>
<td><strong>Due Date:</strong> Week 5</td>
</tr>
<tr>
<td><strong>Method of Submission:</strong> e-learning space</td>
<td><strong>Method of Submission:</strong> In Tutorial Class</td>
<td><strong>Method of Submission:</strong> In Tutorial Class</td>
</tr>
<tr>
<td><strong>Penalty for Late Submission:</strong> 0 mark</td>
<td><strong>Penalty for Late Submission:</strong> 0 mark</td>
<td><strong>Penalty for Late Submission:</strong> 0 mark</td>
</tr>
<tr>
<td><strong>Details (Length/Style/Format):</strong> 30 minutes /multiple choice questions</td>
<td><strong>Details (Length/Style/Format):</strong> 30 minutes/Design and problem solving questions</td>
<td><strong>Details (Length/Style/Format):</strong> 30 minutes/Design and problem solving questions</td>
</tr>
</tbody>
</table>
### TASK 12

**Task Title:** Practical Report  
**Due Date:** Thursday, Weeks 7 or 8  
**Method of Submission:** in ‘100’ Level Lab Report Box located outside 35.132A.  
**Details (Length/Style/Format):** Up to 6 pages report on the allocated laboratory experiment  
**Penalty for Late Submission:** Loss of 20% per working day late

### TASK 13

**Task Title:** Practical Report  
**Due Date:** Thursday weeks 12 or 13  
**Method of Submission:** in ‘100’ Level Lab Report Box located outside 35.132A.  
**Details (Length/Style/Format):** Up to 6 pages report on the allocated laboratory experiment  
**Penalty for Late Submission:** Loss of 20% per working day late

### 12. Assessment Task Details

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Weight</th>
<th>Method of Submission</th>
<th>Date Due, Time and Location, if Relevant</th>
<th>Penalties for Late Submission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Examination</td>
<td>57%</td>
<td>Official University Examination</td>
<td>Official University Examination</td>
<td>No Late submissions will be marked.</td>
</tr>
<tr>
<td>Tutorials - Assignments / Quiz</td>
<td>15%</td>
<td>In Tutorial class quizzes</td>
<td>Weeks 3, 5, 7, 10 and 12 in the Tutorial class</td>
<td>No Late submissions will be marked.</td>
</tr>
<tr>
<td>Practical Logbook</td>
<td>9%</td>
<td>Practical Logbook</td>
<td></td>
<td>No Late submissions will be marked.</td>
</tr>
<tr>
<td>WebCT Quizzes on Laboratory Experiments</td>
<td>9%</td>
<td>Online Quiz</td>
<td>weeks 4, 6, 8, 10, 12 and 14</td>
<td>No submission permissible outside the allocated time</td>
</tr>
<tr>
<td>Practical Reports on Experiments</td>
<td>10%</td>
<td>Submitted to ‘200’ Level laboratory reports box outside 35.G43 (Laboratory Report Cover Sheet attached).</td>
<td>weeks 7 or 8 and 12 or 13</td>
<td>20% per working day</td>
</tr>
</tbody>
</table>

### 13. Extensions for Written Work/Academic Consideration

Students who miss a deadline or otherwise find their work in the subject affected by illness or serious misadventure are required to lodge a formal request for Academic Consideration via SOLS. The procedures for lodging a request are available at:  
14. Return and Retention of Assessed Materials

Assessed materials (with the exception of end of session examination papers) will be returned to students in class or available from the SECTE Stores Officer in Room 35.132A. Uncollected materials will be retained until Week 13 of the following Session. Following this date uncollected materials will be securely disposed of.

End of session examination papers are not returned to students. Students wishing to view their end of session examination paper will need to contact the subject coordinator to arrange a time for viewing. End of session examination papers are held by the School in a secure location for a period of two years before they are disposed of securely.

15. Plagiarism

Students are responsible for submitting original work for assessment, without plagiarism or cheating, abiding by the University's policy on plagiarism as set out in the University Handbook under Universities Policy Directory and in Faculty Handbooks and subject guides. Plagiarism has led to expulsion from the University.

Plagiarism is the use of another person's work, or idea, as if it were your own. The other person may be an author, critic, lecturer or another student. When it is desirable, or necessary, to use other people's material, take care to include appropriate references and attribution - do not pretend the ideas are your own. Be sure not to plagiarise unintentionally. For example use of phrases, sentences or paragraphs, or use of software algorithms, subroutines, techniques or designs produced by others, without clearly describing their origin, is a common form of plagiarism, which can attract severe penalties and even expulsion from the University.

PLAGIARISM WILL NOT BE TOLERATED.

Non-detection of plagiarism in one case, cannot be used as a excuse for continuing the practice. Plagiarism has led to expulsion from the University. If you are in any doubt as to what plagiarism means, the article on 'Plagiarism and Intellectual Property' in the November 2001, Vol.39, No.11 issue of IEEE Communications Magazine, will answer most of your questions and you are strongly advised to read it. Oral examinations may be conducted to authenticate work.

Students must abide by they University's policy on Acknowledgement Practice/Plagiarism.

16. Grievance Procedures

Students that have a problem or concern in relation to their academic experience will need to consult the University and Faculty of Informatics Grievance Procedure.

17. School Policies

All School Policies applying to this subject, including academic consideration, grievance procedures and assessment are available from the School's webpage under information for Current Students.

Students are advised to familiarise themselves with these requirements. Hard copies are available from the School Office (35.G43) on request.

School Policies do not supersede any University Codes of Practice, rules and Guidelines. School policies must be read in conjunction with the applicable University requirements.
18. University Codes of Practice, Rules and Guidelines

The University has in place codes of practice, rules and guidelines that define a range of policy issues on both educational and student matters. Students must familiarise themselves with the contents of these requirements:

(a) Code of Practice - Teaching and Assessment

(b) Code of Practice - Students

(c) Acknowledgement Practice/Plagiarism

(d) General Course Rules (including: Enrolment, Assessment and Intellectual Property)

(e) Academic Consideration Policy

(f) Course Progress Policy

(g) Respect for Diversity Policy

(h) Occupational Health and Safety

(i) Student Academic Grievance Policy

(j) Disability Support

End