

**FACULTY OF SCIENCE, TECHNOLOGY AND ENGINEERING  
QUALITY ASSURANCE OF UNITS**

**Report by Unit Co-ordinator**

<b>Unit code:</b> ELE4ADD/5DSD	<b>Year: 2008</b>	<b>Campus: Bundoora</b>
<b>Unit coordinator: Jim Whittington</b>		
<b>Teaching staff: Jim Whittington, Ngoc Vinh Vu (laboratory demonstrator)</b>		

**UNIT AIMS:**

This unit focuses on design techniques and methodologies for digital system design. The subject aims to provide not only knowledge of current practices, but also practical hands-on experience in design, simulation, verification and implementation of digital systems using industry standard EDA tools.

**SECTION A: NUMERICAL INFORMATION**

Number enrolled: 25

Number completing the QAU questionnaire: 15

Grade distribution :           A: 6   B: 3   C: 7   D: 7   E: 0   N: 1   NS: 1

Other (Please list): none

( 2007 results A: 12, B: 7, C: 4, D: 1, N: 0, NS:1)

**SECTION B: STUDENT RESPONSES TO THE QUESTIONNAIRE**

(a) Please complete the following table (with previous year's results if available – only 6 survey responses in 2007 so no statistical analysis was generated)

Specific Responses to Questions:

Qa: the unit helped me develop as a team member :- 4.3

Qb: work in the unit helped me develop my analytic skills :- 4.3

Qc: Learning in this unit helped me develop my problem-solving-skills :- 4.3

Qd: I have developed my communication skills in this unit :- 3.2

Qe: this unit has helped me in tackling unfamiliar problems :- 4.1

Qf: the unit helped me to develop the capacity to plan my work :- 3.8

Qg: I improved my oral communication skills :- 3.0

Q1: the aims of the unit were made clear at the start :- 3.4

Q2 the teaching staff put a lot of time into commenting on my work :- 3.2

Q3: I was generally given enough time to understand the things I had to learn :- 3.3

Q4: the staff made a real effort to understand the difficulties I was having with my work :- 3.4

Q5: appropriate forms of assessment were used in this work :- 3.8

- Q6: teaching staff gave me helpful feedback :- 3.6  
Q7: the teaching staff were extremely good at explaining things :- 3.5  
Q8: the workload was manageable :- 2.9  
Q9: the teaching staff worked hard to make this unit interesting :- 3.3  
Q10: I was able to access the learning resources :- 4.1  
Q11: the teaching staff motivated me to do my best work in this unit :- 3.5  
Q12: overall I am satisfied with this unit:- 3.5

**(b) Summary of student comments on best aspects**

Best aspects of the unit:

- Analytical Skills
- Programming Skills
- The assignments were very pragmatic
- Project work
- The labs and project are very practical
- Access to individual development boards
- Jim was very good at explaining things
- The unit was interesting and fun

**(c) Summary of student comments on needed improvements**

Aspects of the unit that need improvement:

- Transition from different tools
- More detailed explanation of lab work in lectures
- Availability of demonstrators outside lab hours
- Lectures – presentation could be improved

**SECTION C: UNIT COORDINATOR'S COMMENTS**

**(d) Last year's suggested improvements**

- Surveys results generally positive to very positive - no particular recommendations.

**(e) Unit coordinator's comments on the unit this year**

This unit appears to be meeting its aims reasonably well, although there are some aspects that could be considered for improvement. The student performance level was reasonably good, though down on recent years performance. While the student feedback was generally positive there are some areas worthy of comment. (i) This is a highly technical and practical unit (a positive in the eyes of the students). It doesn't specifically teach communication skills (written or oral), which probably accounts for some of the lowest feedback scores being related to these items. (ii) From the survey summary results there appears to be some concern sounding the perceived quality of staff feedback, motivation and interest – although this wasn't directly commented upon in the written comments. This will require closer monitoring and improvement in 2009. (iii) Workload, while the workload requirements have remained basically constant for the past few years, it would appear that this years cohort found the

workload more challenging than in previous years. Although, there was no mention of this in the written comments – so the exact issue is a little hard to determine. Again this aspect will require monitoring in 2009 and a reduction in requirements for the assignment and/or project if appropriate.

Turning to the written comments, the practical nature of the unit and the skills it develops, particularly through the assignment and project, are generally very much appreciated by the students. Hence, care need to be taken when considering a reduction in workload so that the value of this work is not lost. There was a comment that the transition between tools needed improvement. Most advanced software tools come with example tutorials, if not already done so these should be identified and their existence pointed out to students. This should provide more examples for the students to work with and hence improve their skills in using the particular tools. It was suggested that the lecture presentation could be improved and that greater detail of laboratory work could be discussed in lectures. These are worthy suggestions and should be incorporated in 2009, where possible. Finally, while it would be desirable to extend the availability of laboratory demonstrators, given current budget constraints this is unlikely to be feasible.

**(f) Unit coordinator's suggestions for improvements next year**

1. Monitor staff feedback processes. Where possible provide additional opportunities for comment on students' work. For example, regular progress meetings on project work. .
2. Review unit workload without compromising quality of assignment and project work. Consider project teams of three (previously 2).
3. Revise lectures, improve presentation and incorporate more detail on laboratory work. Include additional references to tutorials on software tools where possible.
4. Request additional funding from Head of Department for additional demonstrator hours.

**Signed:**

**Date: 17 Sept 2008**

**(Unit Coordinator) Jim Whittington**

**SECTION D: COMMENTS BY HEAD OF SCHOOL OR NOMINEE**

**Signed**

**(Head of School)**

**Date**