

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

Report by Unit Co-ordinator

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|---|---|-------------------|-------------------------|
| Unit code: | PHY11SCA PHY11ENG | Year: 2006 | Campus: Bundoora |
| Unit coordinator: Dr Narelle Brack | | | |
| Teaching staff: | Dr Narelle Brack Associate Professor Paul Pigram | | |

SECTION A: NUMERICAL INFORMATION

Number enrolled: 173 (SCA) +40 (ENG) = 213 (Total)

Number completing the QAU questionnaire: 46

Grade distribution [Total (SCA, ENG)]: A: 34 (27,7) B:16 (13,3) C:38 (30,8)
D:42 (35,7) N: 82 (68,15)

SECTION B: STUDENT RESPONSES TO THE QUESTIONNAIRE

- (a) Please complete the following table for questions used in your unit (with previous year's results if available)

Note that the names of the relevant lecturers have been removed from Q18..

| | | Mean |
|------|--|-------------|
| 1 | The aims were made clear. | 3.9 |
| 2 | You can clearly see the relationships between the important concepts in this unit. | 3.5 |
| 3 | The course developed my problem solving skills. | 3.5 |
| 4 | The feedback on assessments in this unit is useful in helping you learn. | 3.4 |
| 5 | Things have been explained well in the lectures. | 3.5 |
| 6 | The amount and type of assessment is appropriate for this unit. | 3.7 |
| 7 | The tutorials and homework problems assisted me in understanding the concepts. | 3.7 |
| 8 | You can clearly see how the various parts of the unit (lectures, laboratory, tutorials, and homework problems) fit together. | 3.4 |
| 9 | Overall the staff made themselves available to students. | 3.9 |
| 10 | The workload is manageable. | 3.4 |
| 11 | Having the notes on the web assisted my learning in this unit. | 4.1 |
| 12 | The tutors and demonstrators made a substantial effort to explain things clearly. | 3.8 |
| 13 | The level of support, help and advice is appropriate for this unit. | 3.6 |
| 14 | Overall, the quality of teaching was high. | 3.8 |
| 15 | On average, how many hours of study each week do you do for this unit (non-class time)?. | 3.7 |
| 16 a | Communication skills.. | 3.1 |
| 16 b | Team skills.. | 3.4 |
| 16 c | In-depth technical competence.. | 3.5 |
| 16 d | Problem solving skills including problem identification, formulation and solution.. | 3.9 |
| 16 e | Critical and reflective thinking skills.. | 3.6 |

| | | |
|------|---|------------|
| 16 f | Intellectual curiosity, independent and life long learning skills.. | 3.3 |
| 16 g | Understanding of professional and ethical responsibilities.. | 3.2 |
| 16 h | Understanding the need for sustainable design and development.. | 3.1 |
| 17 | All things considered, how would you rate this unit? | 3.6 |
| 18 a | All things considered, how would you rate the lecturer in this unit ? | 5.3 |
| 18 b | All things considered, how would you rate the lecturer in this unit)? | 4.5 |
| | Mean score (taken over all questions) | 3.7 |

(b) Summary of student comments on best aspects

Laboratory experiments and demonstrators were the most commonly cited best aspect (14/46). The second half of the course attracted praise (4/46), as well as the tutorials (2).

(c) Summary of student comments on needed improvements

Common student desires were for fewer topics (9/46) and simpler explanations (6/46) in lectures, and for lecture notes to be posted on webCT earlier (7/46). Other areas were too much assumed knowledge (4/46), labs poorly integrated with lectures (4/76), dull lectures (4/46), high workload (4/46) and not enough problem solving in lectures (4/46).

SECTION C: UNIT COORDINATOR'S COMMENTS

(d) Last year's suggested improvements

Review lecture material to include more worked examples and more intuitive explanations of equations, and assess its relevance to engineering students.

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

Students enjoyed the delivery of the course, as reflected by the high responses to questions regarding quality of teaching. This was helped by the introduction of more worked examples, especially into the first half of the semester (mechanics). The subject matter is perceived as difficult, and the workload high in comparison to other university subjects. Most students recognised an improvement in their analytic and problem solving skills, and recognised a link between these rewards and the difficulty and workload. The labs were perceived as a weakness, not so much the delivery as in the content.

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

The use of web-based teaching should be sustained and expanded where possible to do so without consuming too much lecturer's time. Lecture notes should be posted at the start of each section rather than the day before. Careful attention should be paid in tutorials to students who may be struggling with background material. Refer explicitly to lab experiments in lecture material.

SECTION D: COMMENTS BY HEAD OF SCHOOL OR NOMINEE

Signed

(Head of School)

Date