

# AUTC Physics Project 2004

## Interview with HOD at selected institutions

### Glossary

*Physics service subject:* is one delivered, maintained and assessed largely by the department of physics, specifically designed for non-physics majors (including interest courses such as Physics for Life Sciences and Astronomy).

*Multidisciplinary subject:* is where the teaching of a subject is substantially shared between physics and other departments, schools or faculties.

*Mainstream subject:* is one that physics majors or potential physics majors take. A mainstream subject can also be taken by non-physics majors.

### Overview

**The project team has been asked to explore how physics teaching is responding to changes such as the increasingly multidisciplinary nature of science and broader employment possibilities, new technologies and approaches to teaching and learning, and the evolving nature of service teaching.**

**This interview will explore some issues in more depth than was possible in the written questionnaire.**

**It will first cover three areas relating to teaching and learning: the teaching profile, infrastructure and the staff profile. We will then look at how your department develops and maintains good teaching practices.**

### Section 1 - Departmental Profile (25-30 mins)

**First, the undergraduate *teaching profile* of your department (i.e. the directions and emphases in your teaching). What influenced the decisions for recent and planned developments in your *teaching profile*?**

**Second, in relation to the *infrastructure and resources* for teaching: What influenced the recent decisions and plans for *infrastructure and resources* for teaching?**

**In relation to the *staff profile* of your department; to what extent does teaching influence the decisions made in this area?**

**What future directions do you see for the *staff profile* at your department?**

**How do the research strengths of your department influence the curriculum and the quality of teaching?**

Section 2 - Good Teaching Practices (20 mins)

**We will now turn to good teaching practices in your department. Questions about good practices will cover up to two instances selected where possible from multidisciplinary, service and mainstream teaching.**

**In reply to our questionnaire you mentioned \_\_\_\_\_ and \_\_\_\_\_** (whatever they DID mention that is relevant; up to two examples, with selection across institutions to ensure coverage of multidisciplinary, service and mainstream).

(In the case of only one case mentioned in the questionnaire, invite a further example, asking particularly for teaching in one area not mentioned above)

**Can you describe another development in the last few years in the provision of** (one of service/multidisciplinary/mainstream not covered above) **teaching which has been successful in your department?**

**Could you give some background to (each) good practice and explain the extent to which it has been successful in your department?**

**How have you been able to ensure that good practices are sustained?**

**What type of support and incentives do you (your department or institution) provide for staff development in teaching, and for developing good teaching practices? Are these effective?**

Section 3 – Future (10 mins)

**Three broad questions in conclusion:**

**Has your department's teaching benefited from interaction with peers in Australia or overseas? If so, how?**

**Where do you see tertiary physics teaching and learning in Australia heading in the future? (How can we improve our future?)**

**Is there anything else that you would like to say concerning physics teaching and learning in your department?**

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### NOTES FOR INTERVIEWER

#### Section 1 - Departmental Profile (25-30 mins)

Focus on 3 key areas:

- *Teaching profile* – what determines the directions/emphases in teaching.
  - Prompt 1: not just description but influences
  - Prompt 2: cover all teaching (1<sup>st</sup> year mainstream & service; honours to PhDs)
  - Prompt 3: research vs teaching
- *Resources/Infrastructure* – what implications
  - Prompt 1: not just description but influences
  - Prompt 2: if answer just funding ask for distribution to labs, equipment, etc.
  - Prompt 3: research vs teaching
- *Staff profile*
  - Prompt 1: not just description but influences
  - Prompt 2: cover all (not just research, but also casual, tutors, sessional, etc)
  - Prompt 3: research vs teaching

The interviewee is asked what influences decisions made and the future direction in each of the 3 areas (order is important, teaching profile → infrastructure → staff profile). Replies are allocated an approximate duration of 10 minutes for each area.

#### Section 2 - Good Teaching Practices (20 mins)

Questions about good practices should cover mainstream, service and multidisciplinary teaching.

#### Section 3 – Future (10 mins)

The interviewee is given 10 minutes to discuss the future direction of the institution and also where it fits within, and their views of the Australian physics community.