

5 March 2004

**Explanation to Heads of Departments/Schools teaching physics
and their nominated representative where appropriate**

AUTC Project - Learning Outcomes and Curriculum Development in Physics

The Australian Universities Teaching Committee (AUTC) has commissioned a study of teaching and learning in tertiary physics in Australia. The project team, led by Dr David Mills of Monash University and Dr Manjula Sharma of the University of Sydney, represents 13 universities.

Most aspects of tertiary physics teaching will be covered in this study, including our response to new multidisciplinary areas, the role of new technologies, changing student backgrounds and expectations; changes in graduate employment destinations and employer requirements, the relationships with Engineering and with Biological Sciences, and the role of physics academics preparing teachers for schools. Among the benefits to the physics community will be a clear picture of challenges and trends, and access to a range of strategies which have been used successfully in a range of situations. There is no intention to rank departments.

(To Heads) Thank you for permission for your department/school to participate in this study.

(To persons nominated by their head) Permission has been given by your Head of department/school to participate in this study.

The involvement sought from your department is to complete a questionnaire on teaching and curriculum in your department. Where necessary we may seek clarification by phone or email.

For some institutions, selected on the basis of features of the department identified in the questionnaire, we will invite further information on specific details, by interview.

(This paragraph only included for larger institutions where focus groups are a possibility): The project team recognizes the likelihood of running focus groups of students and/or recent graduates from a small number of institutions to explore a small number of issues such as student awareness of multidisciplinary employment opportunities involving physics. We would consult you regarding this possibility well in advance.

Participation is voluntary and a department/school or individual may decline to be involved or to withdraw at any time.

Grievance procedures regarding this project are outlined below.

The information sought is intended to be objective and represent the consensus of your department. A copy of the data/information in the form in which it is recorded by the project will be returned to you for checking, and you may request a copy of information relating to your school at any time.

This information will only be available to members of the project and will be kept secure as required for research data and will be destroyed after 5 years. The identity of participants and departments contributing the information will be protected and will not be disclosed.

We will seek your department's permission if, in reporting on this project, it is appropriate, for example, to recognize a successful approach used by your department/school in the published report or publications from this project.

Should you have any complaint concerning the manner in which this research (project number [2004/042](#)) is conducted, please do not hesitate to contact the Monash University Standing Committee on Ethics in Research Involving Humans at the following address:

The Secretary
The Standing Committee on Ethics in Research Involving Humans (SCERH)
Building 3D
Research Grants & Ethics Branch
Monash University VIC 3800
Tel: +61 3 9905 2052 Fax: +61 3 9905 1420 Email: scerh@adm.monash.edu.au

Thank you.

Dr David Mills and Dr Manjula Sharma
Project Co-Leaders

Explanation to Student Participants in Focus Groups
AUTC Project - Learning Outcomes and Curriculum Development in Physics

27 February 2004

The Australian Universities Teaching Committee has commissioned a study of teaching and learning in tertiary physics in Australia. The project team, led by Dr David Mills of Monash University and Dr Manjula Sharma of the University of Sydney, represents 13 universities.

The study seeks to describe how physic teaching has responded to new multidisciplinary areas, new technologies, changing student backgrounds and expectations; changes in graduate employment destinations and employer requirements. By having a clear picture of the challenges and trends, and providing a range of successful strategies for given situations, it is expected that there will be considerable benefit to students taking physics in the future as well to employers and the community through having better prepared graduates and better flow-on into secondary physics teaching.

Students are being sought for focus groups of usually 4-6 students to assist this project. Focus groups will help us understand what strategies work successfully and what new strategies may be needed. The focus group will take approximately 1 hour, will be audio-taped, and will be conducted by a qualified person with no role in your course. The head of your physics department/school has given permission for student focus groups to be conducted.

Participation is voluntary; you may decline to be involved or may withdraw from the focus group at any point. If you have any queries please contact the Project Officer

Mr Alberto Mendez,
School of Physics,

University of Sydney NSW 2006.

Email: alberto@physics.usyd.edu.au
Tel 02 9351 5982

The transcript of your focus group will be made available to you as soon as available, before it is collated into the project report. Confidentiality of data will be maintained by having the original tape and transcript only available to project staff responsible for the focus groups. The identities of participants will be coded and not be disclosed in the transcript or in any other documents or reports. Once the transcript has been confirmed the original tape will be wiped to further protect your identity.

The information will be kept secure, and data will be destroyed after the statutory time.

We would like to inform you of the outcomes of this project. The overall report of the Project will be available via the web and if you wish to be informed of its release date and web address please contact the Project officer at the above address.

Grievance procedures for this project are shown below.

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Thank you.

Dr David Mills and Dr Manjula Sharma
Project Leaders.

27 February 2004

Explanation to Participants (other than academics and students)

AUTC Project - Learning Outcomes and Curriculum Development in Physics

The Australian Universities Teaching Committee has commissioned a study of teaching and learning in tertiary physics in Australia. The project team, led by Dr David Mills of Monash University and Dr Manjula Sharma of the University of Sydney, represents 13 universities.

Most aspects of tertiary physics teaching will be covered in this study, including our response to new multidisciplinary areas, the role of new technologies, changing student backgrounds and expectations; changes in graduate employment destinations and employer requirements, the relationships with Engineering and with Biological Sciences; the role of physics academics preparing teachers for schools. Among the benefits to the physics community will be a clear picture of the challenges and trends, and access to a range of successful strategies which have worked in particular situations.

Information is sought from employers of physics graduates and other stakeholders, in particular regarding to the preparedness of graduates for the workplace and regarding the contribution people and organizations outside physics departments to the shape of physics curricula. This will be in usually a phone or face-to-face interview taking around 30-45 minutes.

Information from you as a participant will be reported back to you in the form recorded by the project, for checking. This information will only be available to members of the project, it will be kept secure as required for research data and will be destroyed after 5 years.

The identity of participants contributing information will be protected and will not be disclosed. We will seek your explicit permission if we consider that it would be helpful to the physics or broader community to attribute a statement to you in the published report or other publications of the project.

Participation is voluntary and an individual may decline to be involved or to withdraw at any time.

Grievance procedures for this project are shown below.

We would like to inform you of the outcomes of the project, if you are interested. The overall report of the Project will be available via the web; if you wish to be informed of its release and web address please contact the Project officer.

Mr Alberto Mendez,
School of Physics,
University of Sydney NSW 2006.

Email: alberto@physics.usyd.edu.au
Tel 02 9351 5982

If you have any queries please contact telephone Dr David Mills, details at foot of page.

Should you have any complaint concerning the manner in which this research ([project number 2004/042](#)) is conducted, please do not hesitate to contact the Monash University Standing Committee on Ethics in Research Involving Humans at the following address:

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The Standing Committee on Ethics in Research Involving Humans (SCERH)
Building 3D
Research Grants & Ethics Branch

Thank you.

Dr David Mills and Dr Manjula Sharma