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TIF GRANT TO INTEGRATE TEACHING: FACULTY OF AGRICULTURE AND SCHOOL OF BIOLOGICAL SCIENCES

Units of study with overlap of content and with potential to expand cooperation between the Faculty and the School were selected. The selected units were Plant Physiology, Entomology and Plant Pathology.

ENTOMOLOGY AND PLANT PATHOLOGY

AIM

The development of the learning resources aimed to support students from diverse backgrounds starting in their Intermediate or Senior year in either of the two topics.

HOW

Electronic resources were built on the approach used for "Fungal Biology".

A computer-based approach was selected because students may access the resource at their convenience, the resource is interactive, use of the resource can continue throughout the unit of study and expertise exists in developing sound learning resources.

Each resource was developed according to the specific needs of the unit of study.

EVALUATION

Volunteers were asked to examine and comment on the developments. The resources were used for the first time during 2004. Comments from student representatives were provided to Student Staff Liaison meetings. As Fungal Biology had been evaluated for its approach previously, the students were specifically asked to address whether the resources met their needs.

Overall, students appreciated the availability of the learning resources and the flexibility this offered them. This enabled them to use the materials as they were required. One person requested a CD of the resource as their home computer kept crashing. Some students indicated that the materials were a little too abbreviated and that library work was necessary to gain the full background knowledge for some themes.

PLANT PHYSIOLOGY

AIM

This Senior year development aimed to bring relevant current research into focus.
A Postdoctoral Fellow reviewed research of the last 5 years. Based on the review, two themes were selected for use each year.

HOW

Each student is now provided with one reference from the last six months. The student organises a peer group to discuss the topic. Each student presents a critical analysis of the history, current status and possible future directions of the research in a presentation to the entire class.

EVALUATION

Students were interviewed during the Laboratory program. They completed a paper-based questionnaire, and a representative reported to a Student Staff Liaison meeting.

Overall, students indicated a deeper understanding of concepts, how to use mathematics to analyse data and use of specialized equipment. They also appreciated access to the materials for review purposes. However, they complained about the lack of a tutor for affirmation of their thinking.

HAS TIF MONEY ENHANCED OUR TEACHING?

COOPERATIVE TEACHING

The Faculty and the School now jointly offer several units of study in the Plant Sciences. They are currently developing an electronic database cooperatively with other units within the University with the goal of making available learning resources in a manner that may be adapted to the purposes of individual academics, units of study or program.

The School and Faculty are now considering greater cooperation in Microbiology.

FLEXIBLE LEARNING

Use of electronic learning resources by students is becoming increasingly common and widespread. Students require more flexible delivery of learning resources because of the increasing pressures of their lives. The model used in Entomology, Plant Pathology and Fungal Biology is adequate for existing purposes. Inclusion of further interactive materials is highly desirable. Additional materials and approaches may be included as time and money permit.

FUTURE

The potential of ELECTRONIC LEARNING RESOURCES is under investigation by Ms J Jones, Learning Centre, University of Sydney. This more detailed analysis of the structure of the learning materials for learning purposes will inform future developments.