

TDU REPORT 2004

Chair of Teaching Committee Copy

**TEACHING DEVELOPMENT UNIT
SCHOOL of BIOLOGICAL SCIENCES
UNIVERSITY of SYDNEY**

**Report to Teaching Committee for the period:
July 2003 - June 2004**

1. INTRODUCTION

During the year the Teaching Development Unit (TDU) continued to develop learning materials for students in the School of Biological Sciences (SOBS). These materials included both online and CD-ROM formats.

2. PROJECTS

New developments – externally funded:

- **Entomology:** The Learning resource was constructed using a navigational interface with a style sheet menu and server side scripts. M Humphery provided the content and T Wilson many of the diagrams. Funded by TIF, collaboration between the Faculty of Agriculture, Food and Natural Resources (FAFNR) and the SOBS. Completed February 2004.
- **Plant Pathology:** The Learning resource was constructed using a similar navigational interface to that for Entomology. Several people contributed content. Funded by TIF, collaboration between the FAFNR and the SOBS. Completed February 2004.

Ongoing developments:

- **Fungal Biology:** The Fungal Biology website was upgraded and reformatted using a style sheet menu and server side scripts instead of frames (completed 25th June). The three resources now have a similar structure and functionality.
- **Plant Anatomy and Physiology:** Modules were developed to provide detailed instruction in use of data acquisition software & hardware, and to replace printed notes. The modules are for use in laboratory classes. A Template was prepared to replace the Caramate slide and sound projection tutorials. The developments were completed.
- **Biology 2 Animals Dry Labs & Foyer Displays BIOL 2001/2002:** The Web site was updated and reformatted, and enhanced with 3rd party videos sourced from the Internet and 3 dimensional presentations of display specimens.

- **Cellular Biology Lecture Resources BIOL2006:** Web pages of images used in lectures were created.
- **Concepts Lecture Resources BIOL1901:** Web pages of images used in lectures were created.

First Year:

CD ROM

- The First Year Biology 2003 CD ROM was updated with inclusion of new learning and self-assessment modules before the 2004 version was released. For the 2004 version the Self-Assessment Modules Menu has been changed to include new modules and the practice exams. All software has been updated to the latest versions. FYB CD ROM is being favourably accepted by FYB students.

Computer – Aided Learning Module

- Excretion: Removal of Metabolic Waste: An Interactive Exploration (complete remaining menu item) for Semester 2, 2004

Self-Assessment Modules (SAMs)

SAM templates used to develop the following new modules.

- Genetics for Semester 1 (Concepts and EtG)
- Cellular Respiration for Semester 1 (Concepts and EtG)
- Musculoskeletal System for Semester 2 (Human Biology)
- Endocrine for Semester 2 (Human Biology)
- Nervous System for Semester 2 (Human Biology)

Interactive practice exams

- **New approach - File Transfer Protocol (FTP) implemented to access questions from the Biology server.**

The existing practice exam for Concepts in Biology is being modified to include the delivery software on the CD ROM (without questions). The questions and answers will be accessed from the Biology server via the Internet at the appropriate time during the semester.

Upgrading TDU web site

A more professional looking website to better inform clients of TDU expertise and display examples of projects is nearing completion.

Future projects

New Developments – externally funded:

- **Plant Sciences:** The FAFNR and the SOBS will jointly offer three Intermediate/Senior units of study (Australian Flora, Plant Form and Function, and Plant Biochemistry) in Plant Science from 2005. The developments in learning materials will be delivered electronically and will aim to provide integrated learning materials and include formative assessment using self-directed modules that are accessed electronically. A sum of \$40,000 has been made available under TIF grant to build the core structure.

Ongoing developments:

- **Molecular Biology & Genetics MBLG 2002:** WebCT quiz tool will be set up for 5 quizzes for different group of students.

First year:

Self-Assessment Modules (SAMs)

- Excretion for Semester 2, 2004
- Reproduction and Development for Semester 2, 2004
- Evolution for Semester 1, 2005

Interactive practice exams:

Living Systems and Human Biology practice exams for Semester 2, 2004 will be modified to be delivered via the Internet.

3. USE OF WEB

Continuing use of the VLE

The VLE continues to be used for all first year biology units of study, except EDUH1016 and BIOL1500. General maintenance has been done throughout the year, with the functionality slightly modified. A link has been added in the Lobby through the lift called “Useful Links”. This takes students to the University support sites (eg The Learning Centre). In addition a link has been added in each unit “room” to “Generic Skills” where information on the use of Excel, writing skills etc are located.

Continuing use of WebCT

WebCT continues to be used for the delivery of information and content for students in various units of study. TDU provided assistance to members of the School to develop and maintain their online student learning resources. Ongoing support for existing learning materials is also essential.

TDU guided FYB on setting the WebCT Quiz tool to replace WebMCQ for delivery of weekly quizzes, and on electronic submission of Human Biology assignments, and student access to the discussion area. The electronic assignment submission allowed an efficient checking of report word counts, and the use of a scanning program to check for plagiarism by students.

4. EXTERNAL CONTRACT WORK

CDDS: The Web site for the Centre for Developmental Disability Studies (CDDS) was completed on time. Further developments are under discussion.

Publishers: Discussions have begun with both Pearsons and McGraw Hill for the TDU to become part of the development team used in the production of electronic textbooks.

5. GENERAL ACTIVITIES

New Initiatives:

Discussed with Su Hanfling, director of Sciences and Technology Libraries, role of TDU in the construction and use of a University-wide Learning Objects Repository.

Development of the Learning Objects Repository (image, sound, video, text etc – learning objects) will enable us to store and use our learning resources much more effectively. Database search facility will add extra value to our digital assets. TDU aims to initiate a sustainable system for storing electronic resources during 2004 - 05.

Maintenance:

Mac OSX server Hardware Software upgrades
Maintenance of OS X server and BugsDb server

Consultation:

- Assisted staff with use of WebCT, Photoshop, Dreamweaver, pdf, html, video, streaming etc.
- Assisting in grant applications, including Apple scholarship.

FYB Visiting high schools and gifted and talented students

Creation of password restricted web pages containing photographs of visiting students.

College of Sciences and Technology Showcase (November 2003):

“Use of new technologies in first year biology teaching 1993 – 2003” is presented.

TDU Staff

Permanent, full time: Aida Yalcin

Permanent, full time: Rob Mackay-Wood (resigned in September 2003)

Casual: Kathy Kuzmanovic

TDU Management Committee

Dr Peter McGee (Chair)

Dr Rosanne Quinnell

Dr Liz May

Mr Michael Joseph

Director, First Year Biology

APPENDIX 1
EXTERNAL REQUESTS for use of RESOURCES

Request	Contact	Resource	Use
Image	Kelly Kunkler Radiology student at Hocking College	Tuberculosis.jpg	Project

APPENDIX 2
EXAMPLES of some PROJECTS

Fungal Biology:
<http://bugs.bio.usyd.edu.au/Mycology/>

Entomology:
<http://bugs.bio.usyd.edu.au/Entomology/>

Plant Pathology:
<http://bugs.bio.usyd.edu.au/PlantPathology/>

