

**Teaching Development Unit
School of Biological Sciences
University of Sydney**

Annual Report 2003

The Teaching Development Unit (TDU) was established by the Head of School to develop interactive multimedia courseware for inclusion in curriculum of units offered by the School. The TDU is managed by a committee and is responsible to the Teaching Committee.

The School of Biological Sciences Teaching Development Unit (SOBSTDU) completed several major projects during the period 2000-2003. First Year Biology continued to provide a substantial number of projects and WebCT became the online delivery environment for the remainder of the School.

Several groups within the University were referred by the USYD Online Learning Project Group to SOBSTDU to construct customised WebCT templates. Profits from these developments were split with the School and provided a source of funding for the TDU to employ casual staff, purchase software and hardware and to support TDU staff attendance at conferences. In addition to external contracts, the TDU has been approached by other departments for advice and help with their projects.

Both members of the TDU attended the September 2001 Apple University Consortium (AUC) conference in Townsville. A poster was presented at the Vice Chancellors Showcase 2001 discussing the form and flow of Biology Today, the School's only unit of study purposely designed from the "ground up" to be delivered online.

Aida Yalcin from TDU was selected to be the USYD AUC staff representative to receive financial sponsorship for her to attend the May 2001 World Wide Developers Conference in San Jose. Presentations from the weeklong conference can be viewed on DVDs available from the TDU office.

The SOBSTDU moved into its new office in room 208 Macleay in April 2001

NEW & CONTINUING DEVELOPMENTS

More information and screenshots of selected developments appear in Appendix 1

Centre for Developmental Disability Studies (CDDS)

WebCT

Template prepared by TDU

6 units customised in 2002

6 units customised in 2003

Units completed:

GSDD5015 -Physical Health of People with Developmental Disability

GSDD5013 -Community Living & People with a Developmental Disability

GSDD5011 -Autism Spectrum Disorders: Theoretical Foundations

GSDD5001 -Critical Issues in Developmental Disability

GSDD5014 -Parenting with a Developmental Disability

GSDD5012 -Behaviour Support & Promoting Quality of Life

GSDD5011 -Autism Spectrum Disorders: Theoretical Foundations

GSDD5007 -Communication and People with a Life-long Disability

GSDD5004 -Multidisciplinary and Collaborative Practice in Developmental Disability

GSDD5003 -Mental Health of People with Developmental Disability

Website

TDU contracted to redesign the CDDS public website. (In progress)

Sydney College of the Arts

WebCT

Create 4 templates of different colour variations

Four WebCT units of study created from the templates

Images uploaded to WebCT "Image Database Tool"

The Learning Centre

Technical consultancy for question template construction by external contractors – "Chemical Engineering Writing Skills".

TDU asked to create "Writing Skills" question templates using DHTML after contractors failed to complete the project.

TDU provided assistance to LC staff to build "How to write a Report for Chemical Engineering" and hosted beta site for Chemical Engineering "How to write a Biology Report" formerly in Authorware, reprogrammed using new DHTML templates

Biology Today BIOL1500

In 2001 Biology Today was moved from the Biology WebCT server (Microsoft NT) to the central University WebCT (Unix) server. Problems were experienced with the move because of the case sensitivity of file names required by the University's Unix server. A substantial investment in time and resources was required to resolve these problems.

As part of the ongoing support for Biology Today, TDU continued to assist Teaching staff with the delivery of the unit.

The majority of students surveyed in the 2001 and 2002 post unit evaluations consider the unit a success with a few students identifying areas where the unit may be improved.

Plant Anatomy and Physiology BIOL 2003

Modules developed to provide detailed instruction in use of Data acquisition software & hardware and to replace hard copy notes.
Template prepared to replace Caramate slide and sound projection tutorials. (In progress)

Plant Physical

Website updated and Modules 3 and 4 completed:

- Formulae and Calculations in Plant Physiology
- Experiments in Plant Physiology

Plant Anatomy Revision Modules

Website updated and new modules added:

- Primary Roots
- Secondary Growth in Stems and Roots
- Hydrophytes

Mycology

The Mycology website underwent further development with additional modules added:

- Plant Interactions
- Animal Interactions
- Uses of Fungi.

Molecular Biology & Genetics MBLG 2001/2002

WebCT

Customised unit of study created for SOBS and Biochemistry

Biology 2 Animals Dry Labs & Foyer Displays BIOL 2001/2002

Web site is updated and reformatted. Enhanced with 3rd party videos sourced from the Internet (In progress)
3 dimensional presentations of display specimens (In progress)

Environmental Sciences/Science Faculty ENVI 2001/2002

Skills awareness pilot project - WebCT
Development of a “behind the scenes” WebCT “user-data calculation” to provide feedback to students completing formative assessment exercises. Students were presented with specific feedback rather than a grade.
Uploading and preparing Communication Writing & Self Management questionnaire into WebCT

First Year Biology CD-ROM

In second semester of 2001 a CD ROM of all FYB computer assisted learning materials was developed to provide students with easy access to computer modules formerly only available via the Internet.
The CD-ROM was distributed with the laboratory notes.

A second version of the FYB CD-ROM was completed in 2002 featuring a new graphical interface design and auto play facility. Use of software installers such as the Authorware Web Player plugin, was also streamlined.

A third version of the FYB CD-ROM was modified for 2003 in response to external expert review and updated with new computer modules and software installers.

First Year Biology - Virtual Learning Environment (VLE)

The First Year Biology VLE continues to be a successful mode of delivery for the vast quantities of online learning resources available to the junior biology students.

New features:

- Sherlock” search
- Pathways to a Career
- Generic Skills whiteboard
- Summer School
- Useful Links
- Human Biosciences (EDUH1016) doorway to WebCT

Learning resources are continually being added and updated

Computer Assisted Modules (CAL)

The following CAL modules are produced

- Immune System: An Interactive Exploration
- Excretion: Removal of Metabolic Waste: An Interactive Exploration
- Nervous system is modified to produce two modules
 - Nervous system: An Interactive Exploration
 - Sense Organs: An Interactive Exploration
- Human Reproduction was modified

Self-Assessment Modules (SAM)

The following SAM modules are produced

- Cellular Respiration
- Genetics
- Nervous System
- Endocrine
- Immune System
- Ecology
- Human Respiration
- Human Circulation
- Human Digestion
- Animal Circulation

First Year Biology - WebTeach

The controlled mediated discussion workshops run by Dr Charlotte Taylor in FYB were expanded to include all students enrolled in Concepts in Biology (Biol1001). WebTeach, a programme developed by staff at the UNSW education faculty, was again run and administered on a TDU server in 2001.

WebTeach was redeveloped as a commercial application in 2002 and made available for FYB under a 'pseudo beta-test' arrangement from a UNSW server.

Cellular Biology Lecture Resources BIOL2006 BIOL1901

Creation of web pages of images used in lectures

FYB Visiting high schools and gifted and talented students

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

Generic Skills

Modified 2nd & 3rd year notes
Added into 1st year

Plant Pathology

Investigating web resources for new unit of study (In progress)

Entomology

New online module modelled on Mycology (In progress)

New TDU web site

Plans for a more professional looking website to better inform clients of TDU expertise and display examples of projects. (In progress)

GENERAL ACTIVITIES

MacOS X server - Hardware & Software upgrades
Configuration OS X server (Web)
Reconfiguration of BugsDb (database) server
Switching from OS9 to OS X in development computers

Consultation:

WebCT
Photoshop, Dreamweaver, Acrobat, html, Video, Audio streaming etc.
Assisting in grant applications - Apple University Development Fund:
Producing conference materials for FYB staff

Competition Entry:

ASCILITE with FYB CD ROM

Sales:

Images

- Nature Magazine
 - T.S. leaf of *Bromus* a grass with typical C₃ photosynthesis
 - T.S. leaf *Panicum miliaceum*, French Millet
- "Biology: The Unity and Diversity of Life," 10/e, Cecie Starr, ISBN: 0-534-38800-0, Wadsworth Publishing
 - T.S. Leaf *Hakea gibbosa*, Sunken stomata

FYB Self Assessment Module templates

- Michael Penisi, School of Accounting, UNSW.

Web sites reviews:

Dr Mike Kingsford, Marine Biology and Aquaculture. James Cook University

CONFERENCES & WORKSHOPS**Apple University Consortium Conference**

AUC Academic and Developers Conference 2001, James Cook University, Townsville, Queensland.

World Wide Developers Conference

Aida Yalcin attended the World Wide Developers Conference, 2001, San Jose, California, USA. The AUC sponsored Aida for airfares and accommodation.

Vice Chancellors Showcase 2001

Poster "Biology Today" illustrating the form and flow of Biology Today

Submitted an abstract for WebCT conference –2001***TDU Staff***

Permanent

Rob Mackay-Wood

Contract

Aida Yalcin

Casual Staff

Kathy Kuzmanovic, Ian Lowe

Volunteer

TDU would like to acknowledge the voluntary work performed by Hillary Larkum

TDU Management Committee

Dr Peter McGee (Chair)

Dr Rosanne Quinnell

Dr Jenny Saleeba

Mr Michael Joseph