

**ACET report
November, 2007**

Technology Teacher Training

This report provides a snapshot of technology teacher training around the country by summarizing the institutions that are involved. The report may not be comprehensive in that other institutions may provide training in specific areas of the Technology Learning Area.

Australian Catholic University

Bachelor of Teaching/Bachelor of Arts (Technology). Current enrolment in Technology course:

Year 1 40 students

Year 2 31 students

Year 3 22 students

Year 4 22 students

Students can specialise in Industrial Arts, Food Technology and/or Textiles Technology. Students may also access VET qualifications during their university enrolment if they wish.

Bachelor of Teaching/Bachelor of Arts (Computing) course requires students to complete a Technology minor. This course has 15 students enrolled in first year which tapers off to about 10 in year 4.

Charles Sturt University

Bachelor of Education (Technology and Applied Studies) - in the 4 year on-campus program students will be qualified to teach D&T and two areas of specific technology selected from Agriculture, Industrial Technology, Food Technology, Textiles and Information Technology through years 7-12. For their area of major technology study they will also undergo sufficient training to teach VET to Certificate II. Advanced standing is available for students with a trade qualification or TAFE training to Cert IV (or equivalent) and work experience. Intake is about 30 per year.

A different distance education stream for industry into teaching the Bachelor of Education (TAS) also exists which takes trade qualified people into an accelerated program (4 semesters in 18 continuous months of primarily education study with some technology enhancements). These people exit with eligibility to teach 1 technology area, VET related to their technology specialty and D&T through years 7-12. This program has an intake of around 50-60.

Edith Cowan University

Bachelor of Arts(Education) Bachelor of Creative Arts: 4 year undergraduate double degree with 40 students across the 4 years. Scholarship available in final year. No minor is available, students study all areas of D&T. Some TAFE studies result in a Certificate 1.

Bachelor of Education – 2 year course with 3 year degree (or equivalent) entry. Full 2 year scholarship available, 18 students in year 1 of this course. Teachers qualified to teach years 8-10. Some TAFE studies result in a Certificate 1.

Graduate Diploma of Education -- 1 year course with 4 year degree prerequisite for entry in a related area. Scholarship available. Six students majoring in D&T.

Griffith University

Currently around 100 students in the Bachelor of Technology Education program:

Year 1 - 28

Year 2 - 22

Year 3- 23

Year 4 – 26

Some TAFE studies during the course result in Certificate 1 in Construction and Engineering. The program has a student exchange arrangement with the Technology program at Purdue University in Indiana

Pathways:

1. BTech Ed – 4 year course

2. BTechEd - RPL of TAFE certificates and diplomas leading to a 3-3.5 year course.

3. Master of Teaching (Tech Ed) – entry by undergrad degree in any area, 1.5 years long.

La Trobe University

Graduate Diploma in Technology Education – two years full-time, offered by TAFE and RTO institutions and La Trobe University. Graduates will teach in one or more of the technology areas from years 8-12. Entry is by a combination of TAFE certificate, diploma and work experience.

University of Ballarat

Bachelor of Technology Education: 4 year full time course.

Prerequisites: General mathematics or mathematical methods. Units 3 and 4 – one of design and technology, food and technology, or systems technology, and a study score of at least 25 in English (any). Up to 1.5 years advanced standing may be granted for 8 years industry experience.

University of Newcastle

Bachelor of Design and Technology/Bachelor of Teaching double degree. The programme structure is 180 units Education and 140 units Discipline.

The Discipline units consist of a core of 80 units and range of 60 unit majors in Food Technology, Textiles and Design, Industrial Technology, Graphics/Multi media, Engineering studies and Computing Studies. The current intake is up to 60 students per year.

University of South Australia

Bachelor of Design and Technology Education (including a Home Economics option) - 4 year undergraduate program, courses include Education, Design and Technology Curriculum core courses, and TAFE courses providing options in Cert 2 in Wood/ Furnishing, Electronics, Welding & Fabrication, Fashion Design, Food and Hospitality. Minor in additional Learning Area available. Intake of 50 students each year

Bachelor of Education Primary/Middle School - 4 year undergraduate program with option of Design and Technology major. Include Professional Pathway/ Honours option. 20 students

Bachelor of Education (Grad Entry) - two-year degree (72 units) delivered in 18 months. Prior degree needed with study in fields associated with D&T learning area. Approx 20 students pa graduate with a 'minor' ie qualified to teach only middle/lower secondary in an LA field eg Ag, Media, HEc, ICT, D&T etc. Only approx 10 majors pa and rarely more than 4 heading for full secondary D&T as ICT is a common major.

Possible forthcoming (2009) double degree: Bachelor of Industrial Design/Bachelor of Education (Grad Entry), 5 year equivalent study with anticipated intake of approx 3-5 students.

University of Tasmania

Bachelor of Design Teaching - a four year course undertaken completely at university and qualifies students to teach in the area of Materials Design and Technology (i.e. wood/metal, home economics etc). Entry into this program is a completed trade qualification + one year university preliminary program.

Bachelor of Teaching - a 2-year postgraduate pre-service course taken after the completion of a first degree with the same outcome as the Bachelor of Design Teaching. Students can specialize in Technology (Materials Design and Technology including Home Economics), and applicants who do not meet the admission requirements in Technology MDT may undertake a bridging course. Bachelor of Teaching usually has between 15-20 students.

Southern Cross University

Bachelor of Technology Education – 4 year degree with specializations in design & technology, food technology, information software & technology, information processes & technology, software design & development, engineering studies, industrial technology - graphics, industrial technology - timber, industrial technology - multimedia, industrial technology - polymers/plastics and textiles & design/technology.

The core 'trade marks' area are Innovation, Design, Technacy (The study of people, tools and their environment as a system), Aboriginal technology studies.

2004 1st yr Intake 30, by end of yr1 22

2005 1st yr Intake 52, by end of yr1 35

2006 1st yr Intake 58, by end of yr1 47

2007 1st yr Intake 48, by end of yr1 35

TOTAL current enrolments in overall course: 126 students to date.

Teacher Shortage

There are D&T teacher shortages in all states.

In Victoria there are shortages of teachers in all areas that come under the technology education banner, including the materials areas of wood, metal, food and textiles. Schools advertising for systems technology teachers (mechanical/electronics and control technology) are also experiencing difficulty in finding replacements - some have no applicants. In some instances, retired teachers may return to teaching (often on a part time basis).

In Queensland, with the desperate shortage of TE teachers, many final year students take up full-time positions after semester 1, with schools gaining provisional registration.

Similarly in WA, final year students often undertake an internship in schools in their final year while completing their degree. The government actively recruits in other states and overseas, and offers up to \$60,000 scholarships for people to enter training programs in areas of most need, which includes D&T. Significant competition from the booming resources sector is evidenced in teacher retention and university recruitment rates.

SA has a shortage of Design and Technology teachers, though it is hard to quantify numbers. The department worked closely with UniSA and the professional association in scoping and promoting the need for a new four year degree.

Re-training/PD pathways courses have been instigated. These are for teachers who are not trained, to up-skill in a particular area eg woodwork and metalwork, and are qualified to teach within that context. This has been focussed on teachers who are currently teaching in the area without any qualifications. Pedagogy remains a problem. The first two groups of 12 were filled easily and the training is undertaken through TAFE and is over 2-3 years part time (holidays) and at about Certificate 2 level. We have made sure that it equates to the training undertaken by students in the four year degree at UniSA. The state department has been more active recently in signing up graduating students.

John Williams