



Graduate Diploma in Design and Technologies Education

Learn while you teach. Broaden your options by becoming a qualified technologies teacher. Our flexible course allows you to study while working full-time.

Campus

Strathfield (multi-mode)

Duration

12 months FT or equivalent PT
(80 credit points)

Fees

\$2,266 per 10cp (based on 2021 fee structure)

Contact / Register your interest

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This course is designed for teachers who wish to upskill and become a technologies lead teacher.

OVERVIEW

The advances in technology globally are changing the way we learn, connect and interact every day and education needs to be at the forefront of this change.

Graduate Diploma in Design and Technologies Education is a course that responds to the need for teachers to be upskilled and ready to empower students in design and technology.

Graduates who successfully complete this course will be able to apply for recognition as a teacher in the following subject areas: Design and Technologies, Industrial Technology (Timber) and Industrial Technology (Engineering), in addition to their current teaching areas.

This flexible course allows for all units to be delivered online, whilst the practical components are undertaken at either an ACU campus or in a school where the student works under supervision of an accredited technologies teacher (and/or technical staff).

Students will explore units in:

- Timber design
- Product design
- Electromechanical and engineering technologies
- Design and technologies curriculum, pedagogy and assessment

Our campus offers fully equipped timber, metal and mechatronics workshops providing students access to traditional tools and equipment alongside opportunities to develop skills in computer aided design and manufacturing.

STEM is a national priority, the Department of Education has responded by offering in-service teacher's scholarships to retrain in technologies. For further information on scholarships available visit the NSW Department of Education website.

ELIGIBILITY

You must comply with the ACU Admission to Coursework Programs Policy.

To be eligible for admission to the course, you must have completed one of the following prerequisites:

- Bachelor's degree in education
- or
- Bachelor's degree and a recognised teaching qualification

COURSE STRUCTURE

To graduate from this course, you must complete 80 credit points (cp) of design and technologies units from the Schedule of Unit Offerings outlined in the course handbook.

You can expect 150 hours of study in total per unit.

Units are run in professional terms for approximately four weeks – three weeks online study and a one week practical intensive.

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UNIT DESCRIPTIONS

Design Principles

This unit introduces students to the design environment in technologies and provides an opportunity to develop knowledge, skills and understanding which will support ongoing learning in the technologies sequence. Students will learn to identify, select and evaluate and apply design principles.

Design in Timber 1

In this unit students will develop knowledge and skills in timber design and associated materials and digital technologies. Students will learn to identify, select and evaluate principles, properties and performance characteristics of timber materials and their suitability for design applications.

Design in Timber 2

In this unit students will extend their knowledge and skills in timber design and the associated materials and digital technologies that are used. Students will refine their skills to identify, select and evaluate principles, properties and performance characteristics of timber materials and their suitability for design applications.

Product Design

This unit develops students' knowledge of the ways in which past, current and emerging technologies influence, and have influenced, principles and processes of product design and production. Through examples and case-studies, students will explore design and manufacturing

techniques suitable for timber, metal and plastics including CAD/CAM technologies and will develop designed products.

Electromechanical Technologies

In this unit students will develop knowledge of the design and manufacture of electromechanical systems including electronics and principles of mechanical engineering and demonstrate appropriate safe use of electronics in design. Practical skills will be developed through the design and manufacture of electronically controlled products using a range of techniques and industrial materials including CAD/CAM technologies.

Engineering Technologies

In this unit students will develop subject content knowledge and skills in engineering, electronics, electromechanical technologies, control systems, programming, design, and manufacture and how these can be applied in various contexts. These key engineering aspects will be studied in past, present, and emerging contexts, and the role of modern engineering on global sustainability, society, ethics, and the environment will be evaluated through review of examples and case-studies.

Design and Technologies Curriculum, Pedagogy and Assessment 1

In this unit students will develop their pedagogical content knowledge through becoming familiar with the knowledge, understanding and skills necessary for teaching design and technologies at a junior secondary level.

Design and Technologies Curriculum, Pedagogy and Assessment 2

In this unit students will consider the place of design and technologies education in contemporary Australian society, and the senior secondary design and technologies curriculum, in particular. They will explore a range of evidence-based approaches for curriculum development and alignment and to plan for effective teaching and learning, including formative and summative assessment.

FURTHER STUDY

Graduate Diploma in Design and Technologies Education provides a pathway for further study in higher degree programs at a postgraduate level, including the Master of Education and Master of Educational Leadership.

ACU is the only metropolitan university that offers in-service teachers this opportunity.

