22586VIC Certificate II in Integrated Technologies (Pre-vocational)

NATIONALLY RECOGNISED TRAINING

This course covers the knowledge and skills to increase job prospects in the Electrotechnology, Information Technology, Telecommunications, Engineering and Advanced Manufacturing Industries. It is an introduction to the electrotechnology, computer networking, automation and advanced manufacturing industries. Students engage with multiple technologies and emerging techniques in the field of 3D printing, CAD, coding, automation and robotics.

ACTIVITIES/TASKS

The course covers theoretical and practical training linked directly to the work of the Integrated Technology industries and includes:
- Computer Networking theory and practical tasks
- Coding, automation and robotics (Arduino, C++, VEX)
- Use of CAD, programming of microcontrollers, robotics, 3D printing and process automation to develop products from conceptualisation to working prototypes
- Solar powered energy systems

UNITS OF COMPETENCY

Units 1 & 2 (Core)		Units 3 & 4 (Core)	
UEECD0007	Apply work health and safety regulations, codes and practices in the workplace	VU23111	Apply electrotechnology knowledge and skills in integrated technologies work
VU23109	Prepare to work in an integrated technologies environment	VU23112	Use computer aided drafting and design
VU23110	Use routine work practices in an integrated technologies environment	VU23113	Carry out an integrated technologies project
Units 1 & 2 (Electives)		**Units 3 & 4 (Electives)**	
VU22340	Use 3D printing to create products	VU23120	Set up and operate a small scale stand-alone photovoltaic energy system with battery storage
VU22963	Build and implement a basic network	VU23119	Install, set up and test an embedded control system

LENGTH OF COURSE

This program is delivered to students as a VET in Schools Vocational Major (VM) program for Year 10 or Year 11 commencements. Internal NCAT students can complete the program a half day per week over two years.

External VCE VM students attend for a half day per week (Feb-Nov) over two years and enrol through their home school.

ELIGIBILITY & PREREQUISITES

It is recommended participants have a minimum sound achievement of Year 10 Maths and English or equivalent and an aptitude for practical work. If you have any individual needs, please contact the college.

ASSESSMENT

Practical project based tasks and design briefs are assessed by observation and questioning, and theory tests and written assessments using set criteria. Students are given a fair and adequate assessment process that includes multiple opportunities to demonstrate competency.

BENEFITS OF TRAINING

Completing the program may provide exemptions from subjects studied in the first year of a Computer Systems, Computer Networking, Telecommunications Diploma and Advanced Diploma courses at another registered training organisation, TAFE or Tertiary Institution.

This certificate also offers a study score in year 12 through scored assessment. The study score can contribute directly to the ATAR as one of a student's primary four scaled studies or as the fifth or sixth study.

APPLICATION & ENROLMENT PROCESS

Students wanting to study full time at NCAT must arrange an interview phone 9478 1333. External students must complete two forms.
1. An Application Form given from home school for approval at the home school level.
2. An NCAT RTO VET Enrolment Form available from the home school VET coordinator or at ncat.vic.edu.au or the Northern Melbourne VET Cluster website nmvc.vic.edu.au

PATHWAYS

The Certificate II in Integrated Technologies provides a pathway into industries likely to combine different types of technologies. Understanding electrotechnology and engineering/ manufacturing processes can lead to careers as a:
- Computer Systems Engineer (Tertiary Level Study)
- Mechatronics System Engineer (Advanced Manufacturing)
- Computer Scientist
- Computer Networking Technician
- Telecommunications Technician
- Information Technology Paraprofessional

Depending on course electives and VCE subjects chosen, there are a number of pathways into apprenticeships or traineeships or articulation into higher qualifications in Electrotechnology, Information Technology, Telecommunications, Engineering and Mechatronics.

POLICIES

The NCAT VET and General Student Handbook on our website contains policies and procedures for access, equity, privacy, refunds, student conduct, recognition processes, access to records, complaints & appeals.

For safety reasons there is a NCAT uniform for this course which is not included in the materials cost.

Parents will receive a letter outlining specific details of the uniform and the supplier.