22527VIC Certificate II in Integrated Technologies (Pre-vocational)

Course Information Brochure

NATIONALLY RECOGNISED TRAINING

Description of Course
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/task
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

Assessment
Assessment is conducted using project based practical tasks, theory tests and design folios/briefs. The assessment of overall competence will be undertaken by a qualified assessor and your competence judged using all of these criteria. All training resources are provided upon payment and enrolment.

Students will be given a fair and adequate assessment process that includes multiple opportunities to demonstrate competency.

Eligibility and 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.

Course Content
Units 1 & 2
Core

UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace
VU22819	Prepare to work in an integrated technologies environment
VU22324	Build a simple network and establish end to end connectivity (to be confirmed)

Electives

VU22340	Use 3D printing to create products
VU22338	Configure and program a basic robotic system

Units 3 & 4
Core

VU22820	Use routine work practices in an integrated technologies environment
VU22821	Apply electrotechnology knowledge and skills in integrated technologies work
VU22822	Use CAD software applications in integrated technologies work
VU22823	Carry out an integrated technologies project

Elective

VU22829	Install set up and test an embedded control system

Benefits of this 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.

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.

Uniform requirement
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.

Length of the Course
The course is half day a week for 2 years. You will be provided with a schedule and training plan for completing assessment tasks for each unit.

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 https://ncat.vic.edu.au/ or the Northern Melbourne VET Cluster website https://nmvc.vic.edu.au/

Policies
For details regarding Access, Equity, Privacy Policy, Refunds Policy, Student Conduct, Recognition Processes, Access to Records, Complaints & Appeals Policy etc. please see the VET & General Student Handbook, available on the NCAT.

RTO Number 6736