

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

### Course Information Brochure



#### 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, telecommunications (including the NBN - National Broadband Network), computer networking, automation and advanced manufacturing. 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 Computer Networking and Telecommunication Technicians as well as preparing students for further study and careers in advanced manufacturing. The course includes:

- Computer Networking theory and practical tasks
- Telecommunications and NBN related architecture
- 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 final production
- Solar and wind powered energy systems

#### Assessment

Assessment is conducted using a combination of project based practical tasks, theory tests and design folios/briefs. The assessment of your overall competence at this certificate level 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.

#### 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 ( <u>to be confirmed</u> )

##### 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)
- Engineer
- 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.

### Course Fees

VET students from other schools have VET course cost arrangements with their own schools. All training resources are provided when classes commence. NCAT students please see the Payment Form – Material Charges.

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 enrolling as full time NCAT students must phone the College 9478 1333 for an interview. External students must apply through their home school VET coordinator and complete the enrolment form at the NCAT information evening.

### Please note

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.