NORTHERN COLLEGE OF THE ARTS & TECHNOLOGY

22289VIC Certificate II in Integrated Technologies

NATIONALLY RECOGNISED TRAINING

Course Information Brochure

Description of Course

The Integrated Technologies course gives students the knowledge and skills to increase job prospects in the Electrotechnology, Information Technology, Telecommunications, Engineering and Advanced Manufacturing Industries.

This course 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 (Cisco Networking Academy)
- Telecommunications cabling and NBN related architecture
- Coding, automation and robotics (Arduino, C++, VEX and Unity for mobile app development)
- 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 the option of an assessment re-sit. RPL is available where you are able to demonstrate equivalent competence.

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	
MEM13014A	Apply principles of occupational health and safety in the work environment
VU21701	Carry out an integrated technology project
VU21702	Prepare for working in the integrated technology sector
Electives	
VU21388	Set up and test an embedded control system
VU21706	Create products using 3D printing
VU20906	Configure and program a basic robotic system
Units 3 & 4	
Core	
VU21703	Work in an integrated technology environment
VU21704	Use electrotechnology skills integrated technology work
VU21703	Use software applications in integrated technology work

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Electives

ICTCBL2136B	Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule

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.