

ELECTRONICS / DATA COMMUNICATIONS TECHNICIAN



TOTAL COURSE HOURS 1080

TOTAL DURATION: 54 teaching weeks plus up to 24 holiday weeks

CAN I APPLY FOR RECOGNITION OF PRIOR LEARNING?

Recognition of Prior Learning is a way for the student to be credited for previous studies and life experience. Contact the College for full details.

ARE THERE ANY COURSE ENTRY REQUIREMENTS?

Australian College of Information Technology requires the following of its students, before they can enroll in our courses:

- IELTS LEVEL 5.5 (if English is not your first language)
- Australian year 10 or equivalent. Eg. G.C.E. O level

HOW DO I APPLY?

Applications can be made via the website: www.acit.edu.au

International enquiries
Phone: +61 7 5578 8122
Or email: international@acit.edu.au

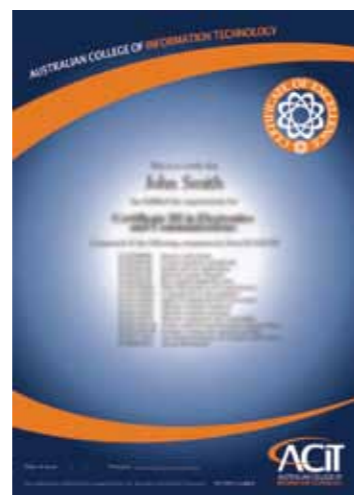
HEAD OFFICE:

Gold Coast
107 Lakeside Bermuda Point
20 Lake Orr Drive
Varsity Lakes
Gold Coast Queensland, 4227

BRISBANE

Level 1,
35 Boundary Street
South Brisbane, Queensland 4101

Disclaimer: Offer of course units is subject to student number viability. Information in course summaries is subject to change prior to commencement of course units. This document, together with the pre-enrollment information and course unit outlines form the full and complete description of the course



AUSTRALIAN COLLEGE OF INFORMATION TECHNOLOGY

Precept Education Pty Ltd ATF
Australian College of
Information Technology
www.acit.edu.au

International students

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Brisbane

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37 Boundary Street,
South Brisbane, Queensland 4101
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107 Lakeside Bermuda Point, 1 Lake Orr Drive
Varsity Lakes, Qld 4227, Australia

ELECTRONICS / DATA COMMUNICATIONS TECHNICIAN

- UEE30907 Certificate III in Electronics and communications
- A +
- Network +



Australian College of Information Technology

CREATING WORLD CLASS I.T. PROFESSIONALS SINCE 1995



OVERVIEW

The Certificate III in Electronics and Communications is for anyone seeking a successful career in electronics, communications and computer equipment servicing.

Students will gain an in depth understanding of the operation of electronic circuits used in analogue and digital electronic and communications equipment. The course provides practical training on how to build, troubleshoot and maintain electronic circuits, computer hardware and networks.

The program also includes industry certification training modules. These modules teach students the core body of knowledge within these highly in-demand certifications and prepare students to take the respective international certification exams.

The certifications taught are A+ and Network+. The training is relevant, practical, and hands on. The program provides a foundation for further study towards qualifications in Information Technology, Networking, and Electronics.

POSSIBLE VOCATIONAL OUTCOMES

- Electronics Technician
- Electronic Equipment Installer
- Electronic Equipment Maintenance
- Field Service Technician
- Computer Support Technician
- Computer Network Installer



COURSE SUBJECTS

FUNDAMENTALS OF ELECTRICAL COMPONENTS AND CIRCUITS

This subject explores basic concepts such as voltage, current, power and resistance in series, parallel and combination circuits. Students should gain an understanding of the principles of electricity and basic circuits through the analysis of passive and active circuit components.

The subject covers;

- | | | |
|------------------------------------|------------------------------|----------------------------|
| • Fundamentals of Electricity | • Magnetism | • PN Junction Diodes |
| • Current | • Inductance | • Zener Diodes |
| • Voltage | • Capacitance | • Bipolar Transistors |
| • Resistance | • AC Circuits | • Field Effect Transistors |
| • Ohm's Law | • Resonance Circuits | • Thyristors |
| • Electrical Measurements – Meters | • Transformers | • Integrated Circuits |
| • Power | • Semiconductor Fundamentals | • Optoelectric Devices |
| • DC Circuits | | |

ELECTRICAL SAFETY

This subject teaches responsibilities for health and safety, risk management processes at all operative levels and adherence to safety practices as part of the normal way of doing work.

The subject covers:

- Hazards and risk control measures
- Electrical and non-electrical isolation
- Safe use of tools and equipment
- Workplace procedures for dealing with accidents, fires and emergencies

HIGH RELIABILITY HAND SOLDERING

This is a practical hands-on subject covering the hand mounting, removal and rework of Through Hole Components on Printed Wiring Boards and wire terminations.

The subject covers:

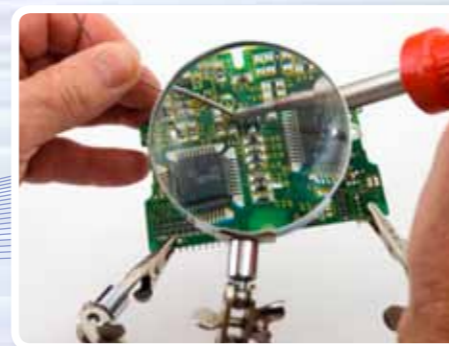
- General Soldering Information
- Soldering Techniques.
- Stripping and Tinning Stranded Wires
- Installing and Soldering Tinned Wires
- Components-Through Hole Mount (THM)
- Components-Surface Mount Technology (SMT)
- Desoldering-THM and SMT
- Evaluation
- Conformal Coatings and Solder Masks
- Pad and Track Repairs
- Run/Track/Trace Repairs
- Burn Repairs
- Edge Connectors/Fingers
- Modifications

LINEAR ELECTRONIC CIRCUITS

This subject teaches students to analyse, build, and troubleshoot signal and power amplifiers and power supplies using electronic devices including diodes, transistors and integrated circuits.

The subject covers:

- Power Supplies
- Amplifier Basics
- Amplifier Applications
- Oscillators
- Waveshaping Circuits



DIGITAL ELECTRONIC CIRCUITS

This subject teaches students to analyse, build, and troubleshoot digital circuits using digital techniques and logic devices.

The subject covers:

- Binary Number System
- Basic Logic Gates
- Simplifying Logic Circuits
- Sequential Logic Circuits
- Combinational Logic Circuits
- Microprocessor Basics



PROFESSIONAL PRACTISE

This subject teaches commercial and practical aspects of electronic servicing work.

The subject covers:

- Sourcing and purchasing materials and parts for installation or service work
- Providing quotations for installation or service work
- Fixing and securing equipment
- Providing basic instruction in the use of electrotechnology apparatus



COMPUTER APPLICATIONS

This subject teaches general computer literacy. Students should become proficient in using computers for office work. The subject addresses the needs of the modern office environment where computers are used to create documents or record and present information.

The subject covers:

- Using the Internet and email
- Using a Computer and Managing Data
- Word Processing with MS Word
- Spreadsheets with MS Excel
- Databases with MS Access
- Presentations with MS PowerPoint

A+ THEORY AND PRACTICAL

The A+ Theory and practical subject provides students with a compressive understanding of how to build and service Personal Computer (PC) hardware and how to install and configure commonly used PC operating systems. The course provides a foundation for a career in PC servicing.

The subject covers:

- Identify all parts of a PC
- Discuss the functions and interactions of all PC subsystems
- Identify and troubleshoot common PC hardware problems
- Select quality PCs and constituent components based on performance and cost
- Install, replace, and upgrade PC hardware components
- Install and troubleshoot PC peripherals such as printers
- Install and configure commonly used PC operating systems



NETWORK+ THEORY AND PRACTICAL

The Network+ Theory and practical subject provides students with a compressive understanding of how to build and configure computer networks and install and configure commonly used network operating systems. The course provides a foundation for a career in network installation and servicing.

The subject covers:

- Identify all parts of a PC
- Network Protocols
- Networking Hardware
- WANs, Internet Access, and Remote Connectivity
- Network Operating Systems and Windows Server Based Networking
- In-Depth TCP/IP Networking
- Network Security

