



Certificate IV in Information Technology (Programming)

National Code: ICT40120-06V02

Course Description:

This course will allow you to acquire the skills and knowledge required to effectively communicate with others while solving problems encountered in writing computer software applications using industry-standard programming languages, database environments, integrated development environments, and computer aided software engineering tools.

You will learn how to program using C#.NET and JavaScript and to design and create databases using Microsoft SQL Server. Gain skills in ICT analysis, managing workplace cyber security and object-oriented analysis & design (using UML).

This course provides:

Learning Resources: Workbooks will be provided by teachers of all subjects.

Also available: Learner Support, Tutoring Support, Counselling, Library, & much more.

Course outcomes include:

Completion of this certificate will provide you with the skills to apply for the Diploma of Advanced Programming.

Entry Requirements:

To successfully complete this course, we recommend that you have:

- Completed Certificate III in IT or equivalent with a clear understanding of:
 - ✓ How to operate a computer
 - ✓ How businesses work
 - ✓ Some understanding of Programming
 - ✓ How to install and configure software
 - ✓ A very good knowledge of software applications such as Word Processing and Spreadsheets with above average typing speed
 - ✓ How to manage files and folders on a computer.
- Language, Literacy and Numeracy (LLN) skills at Level 3 (based on Australian Core Skills Framework).

LOCATION & MODE OF DELIVERY

Location: TAFE NSW Hornsby
205 Peats Ferry Road, Hornsby NSW 2077

Full-Time day: 6 months, 18 hrs/week.
Delivered in face-to-face class mode.

Part-Time Evening: 12 months, 9 hrs/week.
Delivered in face-to-face class mode.

Note: You will be required to spend an equivalent amount of time on course work outside of class time.

Enrolment is required to confirm your place.

- Nationally Recognised Training
- This training is subsidised by the NSW Government [**Not a Free Course**].

**ENROL NOW OR
REGISTER YOUR INTEREST**

www.tafensw.edu.au

CONTACT US FOR MORE INFORMATION

Contact: Michael Kirkwood-Smith

Phone: **02 7921 3612** or **131 601**

Email: michael.kirkwood-smith3@tafensw.edu.au

Web: <http://infotech.hornsby.tafensw.edu.au>



83%

employer satisfaction

NSW employers are very satisfied with the quality of the nationally recognised training we deliver*



80%

of growth areas covered

TAFE NSW trains 8 of the 10 occupational categories with the greatest growth numbers over the next 5 years.^\



89%

graduate satisfaction

With overall quality of training at TAFE NSW#



87.7%

of graduates would recommend TAFE NSW

As a training provider – national VET average 90%#

COURSE STRUCTURE:

This course requires 20 (7 core & 13 elective) units of competency. Units delivered are:

- ICTPRG302 Apply introductory programming techniques
- ICTPRG440 Apply introductory programming skills in another language
- ICTPRG434 Automate processes
- ICTSAD501 Model data objects
- ICTDBS416 Create basic relational databases
- ICTPRG431 Apply query language in relational database
- ICTPRG430 Apply introductory object-oriented language skills
- ICTPRG439 Use pre-existing components
- ICTPRG441 Apply skills in object-oriented design
- ICTPRG433 Test software developments
- ICTPRG436 Develop mobile applications
- ICTPRG437 Build a user interface
- ICTPRG444 Analyse software requirements
- ICTICT449 Use version control systems in development environments
- BSBCRT404 Apply advanced critical thinking to work processes
- ICTICT426 Identify and evaluate emerging technologies and practices
- ICTSAS432 Identify and resolve client ICT problems
- ICTICT443 Work collaborately in the ICT industry
- BSBXCS404 Contribute to cyber security risk management
- ICTICT452 Comply with IP, ethics and privacy policies in ICT environments

Timetable: The timetable is published on our section website-

<http://infotech.hornsby.tafensw.edu.au/ViewTimetable.aspx>

Learning subjects include:

C#.NET Programming

- Learn intermediate-level programming skills in C#.NET, and build user interfaces for software applications.
- Utilise the C#.NET APIs and class libraries to automate business processes.
- Test software applications.
- Analyse software requirements, design Object-Oriented solutions using the Unified Modelling Language (UML) and implement the design in application development.

JavaScript

- Learn introductory, through to intermediate-level front-end programming skills in JavaScript language.
- Utilise Scripting skills in the development of software applications.

Mobile App

- Learn introductory, through to intermediate-level programming skills in React Native using JavaScript and develop a small mobile application.

Database

- Define and manipulate data and data structures using SQL.
- Analyse, model, and build relational databases for specific business requirements.

ICT Analysis and Workplace Cyber Security

- Gain skills in ICT Analysis and Managing Workplace Cyber Security.

FEES & OTHER INFORMATION

Fees: Fees are set by TAFE NSW and can be viewed at:

www.tafensw.edu.au/enrol/fees

This course is Government Subsidised [Not a Free Course].

Career opportunities: Work as a Junior Programmer, Junior Analyst, Support.

Course pathways: Completion of this Certificate will provide you with skills to apply for Diploma of IT (Advanced Programming) course.

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