

**BE AMBITIOUS**

# CERTIFICATE IV IN PROGRAMMING



NATIONAL CODE: **ICT40515**  
INFORMATION TECHNOLOGY SECTION  
HORNSBY COLLEGE TAFE

**COURSE DESCRIPTION:**

This course will provide you with the foundation level skills and knowledge required to program 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 Java and C#.NET, design and create databases using Microsoft SQL Server. Gain skills in OO Analysis and Design.

**COURSE OUTCOMES:**

Completion of this certificate will provide you with the skills to apply for the Diploma of Software Development.

**ENTRY REQUIREMENTS:**

This course is suited to people who:

- Use computers regularly
- Know how to install and configure software
- Have completed prior IT courses or have worked in an industry where computers are used frequently
- Have above average typing speed
- Can easily manage their files and folders on a computer
- Have some understanding of programming

**LOCATION AND DELIVERY**

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

**Full-time day:** 6 months, 18 hrs/week

**Part-time/flexible evening:** 12 months 9 hrs/week. Delivered as a combination of online and face-to-face classes.

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

Registration and payment are required to confirm your place.

**CONTACT US TODAY!****ENROL NOW OR  
REGISTER YOUR INTEREST**

or for more information-

Contact **Peter Panagopoulos**

**Phone:** 9472 1392 or 131 601

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

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## COURSE STRUCTURE:

This course requires 18 units of competency. Units delivered are:

ICTPRG405	Automate processes
ICTPRG410	Build a user interface
ICTPRG414	Apply introductory programming skills in another language
ICTPRG407	Write script for software applications
ICTPRG427	Use XML effectively
ICTPRG404	Test applications
ICTPRG403	Develop data-driven applications
ICTPRG402	Apply query language
ICTDBS502	Design a database
ICTPRG412	Configure and maintain databases
ICTDBS403	Create basic databases
ICTPRG406	Apply introductory object-oriented language skills
ICTPRG413	Use a library or pre-existing components
ICTPRG428	Use regular expressions in programming languages
ICTICT418	Contribute to copyright, ethics and privacy in an ICT environment
ICTPRG419	Analyse software requirements
ICTPRG415	Apply skills in object-oriented design
ICTPMG401	Support small scale IT projects

**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 .NET class libraries to automate business processes.
- Develop software applications that are integrated with a database such as Microsoft SQL Server.
- Test software applications.

### Java

- Learn introductory-through to intermediate-level programming skills in the Java language.
- Utilise the Java class libraries to develop software apps.

### Database

- Define and manipulate data and data structures using SQL.
- Design, build and configure databases for specific business requirements.

### Systems analysis and project management

- Analyse software requirements
- Design Object-Oriented solutions using the Unified Modelling Language (UML)
- Project manage small scale ICT projects.

## FEES & OTHER INFORMATION

**Fees:** Fees are set by TAFE NSW and can be viewed at:  
<https://www.tafensw.edu.au/get-started-at-tafe-nsw/fees-information>

**This course is Government Subsidized**

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

**Course pathways:** Completion of this certificate will provide you with the skills to apply for Diploma in Software Development course.

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