Student Program Information 2019

Certificate IV in Programming (ICT40515)

This document provides the details for the **Certificate IV in Programming**. To use the study plans in this document you must apply for and receive an offer for the Certificate IV in Programming.

There are a number of possible study plans with the recommended study plan having the following key features:

> The qualification can be completed in 9 months if you have previous programming experience

> Mobile application development with C#.NET

> Web page development using PHP

> Object Oriented Programming (OOP) with Java and C#.NET

> Database skills using SQL and mySQL.

> Program Testing techniques

> Systems Analysis and Design

> A major project.

WorkReady

> WorkReady is a State Government initiative providing subsidies to support students to complete certain qualifications.

> This course is subsidised under WorkReady but is NOT eligible for VET Student Loan. **There will be an upfront payment required for this course.**

> There are eligibility criteria for receiving WorkReady subsidy.

> **ALL STUDENTS IRRESPECTIVE OF PREVIOUS STUDIES WILL BE REQUIRED TO DO THE CORE SKILLS PROFILE FOR ADULTS (CSPA) BEFORE THEY ARE ELIGIBLE FOR WORKREADY SUBSIDY.**

> For more information about WorkReady and to see if you are eligible for subsidised training please see the WorkReady online information

IT Studies Subjects

This qualification is from the National Training Package ICT15 that is developed by the Commonwealth Government. TAFESA IT Studies clusters related competencies in the Training Package into subjects. The information below refers to the TAFESA IT Studies subjects and outlines the competencies that makes up those subjects. Delivery and assessment for the subjects will be done holistically so you will be awarded the same result for all competencies taught in that subject. Your final official results will refer to the competencies listed below.

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Assumed Skills and Knowledge

This is not an entry level qualification. There are assumed skills and knowledge that are required to commence at this Certificate 4 level. These could have been gained in a number of ways:

>   Completed the Certificate III in Information, Digital Media and Technology (Group 1) or

>   Other study equivalent to it (refer to the table below); or

>   Have work experience and knowledge equivalent to it (refer to the table below).

If you do not have these underpinning skills and knowledge you will need to use a study plan that contains subjects listed below or do the qualification listed above. Inclusion of these subjects will add 3 months to your study plan, thus requiring 12 months to complete the qualification.

Subject	Description
3PRB	This subject introduces the programming constructs of sequence, selection and iteration, array handling and file processing using Python.
4HTML5	This subject covers the usage and integration of HTML5 and CSS 3. Students will create an interactive website from scratch by coding using the technologies mentioned above.

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Required Competencies

Certificate IV in Programming

National Code: ICT40515 TAFE SA Code: TP00741

Subject	National Code	Competency Name	Assumed Skills & Knowledge
3WHS	**Workplace Health and Safety**		
	BSBWHS304	Participate effectively in WHS communication and consultative processes	N/A
4CEP	**Copyright, Ethics and Privacy in IT**		
	ICTICT418	Contribute to copyright, ethics and privacy in an IT environment	N/A
4JSB	**JavaScript Basics**		
	ICTPRG405	Automate processes	3PRB
4BUI	**Build User Interface**		
	ICTPRG410	Build a user interface	
4C#B	**C#.NET Basics (Visual Studio 2015)**		
	ICTPRG414	Apply introductory programming skills in another language	3PRB
4DBB	**Database Basics**		
	ICTPRG402	Apply query language	3PRB
4JAB	**Java Basics**		
	ICTPRG406	Apply introductory object-oriented language skills	3PRB
5TST	**Testing Techniques**		
	ICTPRG404	Test applications	4C#B
4SDB	**Systems Design Basics**		
	ICTPRG415	Apply skills in object-oriented design	4C#B
	ICTPRG419	Analyse software requirements	
4C#M	**C# for mobile development**		
	ICTPRG403	Develop data-driven applications	4C#B
	ICTPRG418	Apply intermediate programming skills in another language	
5EWD	**PHP Basics**		
	ICTWEB502	Create dynamic web pages	4JSB,4DBB
	ICTDBS504	Integrate database with a website	
4SPRJ	**Software Project**		
	ICAICT408	Create technical documentation	4C#B or 5EWD
	ICTDBS403	Create basic databases	
	ICTICT403	Apply software development methodologies	
	ICTPRG413	Use a library or pre-existing components	

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Subject Descriptions

Subject	Description
3WHS	This subject involves participation in workplace Occupational Health and Safety (WHS) consultative processes.
4CEP	This subject involves maintaining professional and ethical conduct as well as to ensure that personal information of stakeholders is handled in a confidential and professional manner when dealing with stakeholders in an information technology (IT) environment.
4JSB	This subject will cover the basic syntax of javascript and enable you to automate client-side validation of data on a web page. The use of functions is explored.
4C#B	This subject covers the planning, design, development and building of modularised, event-driven applications targeting the Universal Windows Platform (UWP). , using C#.NET with Visual Studio 2015.
4BUI	This subject covers the basics of user interface design, and how to plan, design, develop and build user-friendly programs targeting the Universal Windows Platform (UWP) using XAML
4C#M	This subject will focus on the development of Data driven Object Oriented applications in C#.NET and XAML with a focus on mobile application development on UWP Windows platform.
4DBB	This subject will cover the basics of SQL and fundamentals of database design including aspects such as primary and foreign keys, and referential integrity.
4JAB	This subject covers Object-Oriented programming basics using Java. Topics include, classes, aggregation/composition, inheritance, polymorphism, arrays, text and binary streams. Netbeans is used as the development environment.
4SDB	This subject covers sequence, activity and state diagrams. Agile approach with SCRUM is used in conjunction with OO development methodologies.
5TST	This subject covers how to set up test plans and test cases. For unit testing, testing frameworks are used such as NUnit and JUnit. IBM Rational Functional Tester is also used for automating the testing process.
5EWD	This subject covers creating simple databases using MySQL, writing PHP applications to-provide web-based interfaces, processing data, querying MySQL databases, generating web-based reports. These skills will be learnt in the context of common e-commerce applications such as, automated mailing lists, product catalogues, shopping carts, payments systems. This subject also covers securing the web applications using encryption techniques.
4SPRJ	This subject brings together the skills developed in other subjects. It requires you to create a web-site with certain features, such as database storage of data, and provide all associated documentation. It can be related to the work done in the 3WPB, 4JSB or 5PHP subjects, or another web-site you may wish to develop. You will be creating an e-portfolio of your work suitable as a demonstration of the skills you have developed in this course.

Certificate IV in Programming –Semester 1, 2019

tafesa.edu.au
CRICOS Provider Code: 00092B - RTO Code: 41026
CRICOS Course Code: 088903M
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**TAFE SA Study Plan for Full-Time Students
with the Assumed skills and Knowledge (9 months) SD4XS**

The table below shows the study plan for the Certificate IV in Programming. Each stage is one Semester (or 6 months) in length divide into two terms each of 3 months.

Year 1			
Stage 1		**Stage 2**	
		5EWD (2) *4SPRJ (2) 5TST (2) 4JAB (2) 4C#M (2) Practical (4)	
Term 1	**Term 2**	**Term 1**	**Term 2**
There are no Term 1 subjects *This is a 9 month plan*	4JSB (2) 4BUI (2) 4C#B (4) 3WHS ^(2) 4CEP^ (2) 4DBB (4) Practical (4)		
Exit Qualification			
No exit qualification at this Stage		Exit with the *Certificate IV in Programming*	

Please Note: This program structure is subject to change.

Legend:.

^   These subjects are delivered in an external/online mode. Some other subjects may be available in an external/online or blended delivery mode please check this with your lecturer at time of counselling.

( )   The number in brackets after the subject is the indicative number of contact hours per week that you expect to study at a TAFESA campus for that subject.

*   If you are part time you should enrol in 5EWD before 4SPRJ.

NOTE: The study plan is for a full-time student with class-attendance. This is usually between 14-18 hours a week of attendance. Your local campus may offer the subject in a variety of formats including online, self-paced etc.

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TAFESA Study Plan for Full-Time Students who DO NOT have the Assumed skills and Knowledge (12 months) SD4AS

The following table shows the study plan for the Certificate IV in Programming also covering the required underpinning skills and knowledge. Each stage is one Semester (or 6 months) in length divide into two terms each of 3 months

Year 1			
Stage 1		**Stage 2**	
4DBB (2) Practical (4)		4SDB (2) *4SPRJ (2) 5EWD (2) 5TST (2) 4JAB (2) 4C#M (2) Practical (4)	
Term 1	**Term 2**	**Term 1**	**Term 2**
4HTML5 (2) 3PRB (2) 4BUI (2) 4CEP ^(2) 3WHS^(2)	4JSB (2) 4C#B (4)		
Exit Qualification			
No exit qualification at this Stage		Exit with the *Certificate IV in Programming*	

Please Note: This program structure is subject to change.

Legend:.

^   These subjects are delivered in an external/online mode. Some other subjects may be available in an external/online or blended delivery mode please check this with your lecturer at time of counselling.

( )   The number in brackets after the subject is the indicative number of contact hours per week that you expect to study at a TAFESA campus for that subject.

*   If you should decide between enrolling in 5EWD or 4SPRJ, please enrol in 5EWD first.

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Government of South Australia

Pricing of Certificate IV in Programming

Study Plan	Work Ready Pricing	Work Ready Concession Pricing	Full Fee Paying
Cert IV in Programming – plan SD4AS (You do not have the assumed skills and knowledge)			
Total fee	**$3,630**	**$2,435**	**$6,860**
Cert IV in Programming – plan SD4XS You already have the assumed skills and knowledge			
Total fee	**$3,340**	**$2,325**	**$6,315**

The above prices may vary for a range of students including international students, trainees, VET in schools' students etc. Please contact your local campus for more information if necessary.

The above prices are subject to change.

TAFESA Refund Policy Details

Click here to apply for this qualification