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CANTERBURY BUSINESS COLLEGE

LEARNING & ASSESSMENT STRATEGY

**ICA40505 Certificate IV in Information
Technology (Programming)**

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Learning and Assessment Strategy

Name of RTO	Canterbury Business College			
Training Package	ICA05 Information and Communication Technology Training Package			
Code and title of qualification	ICA40505 Certificate IV in Information Technology (Programming) CRICOS Code – 070180M			
Units of competencies				
Cluster Name	Unit Code	Unit Name	Nominal Hours	Core / Elective
Analyse & Design - 1 / Build (Part A)	ICAA4041C	Determine and confirm client business expectations and needs	20	Core
	ICAA4233B	Determine and apply appropriate development methodologies	20	Core
	ICAW4027B	Relate to clients on business level	20	Elective
Analyse & Design - 1/ Build (Part B)	ICAD4217B	Create technical documentation	20	Core
	ICAD4043B	Develop and present a feasibility report	20	Core
	ICAS4023B	Provide one-to-one instruction	20	Elective
	ICAB4225B	Automate Processes	40	Core
	ICAA4058B	Apply skills in object-oriented design	40	Core
Programming – 1 (Build)	ICAB4219B	Apply introductory object-oriented language skills*	60	Core
	ICAB4222B	Apply introductory programming skills in another language*	60	Core
	ICAB4075B	Use a library or pre-existing components	40	Core
	ICAB4232B	Maintain open source code programs*	40	Core
Programming – 2 (Build)	ICAB4229B	Apply intermediate programming skills in another language*	60	Core
	ICAB4178B	Build a graphical user interface	60	Core
	BSBCMN304A	Contribute to personal skill development and learning	40	Core
	ICAW4214B	Maintain ethical conduct	20	Core
	ICAB4064B	Prepare software development review	20	Elective
Testing – 1 / Project Management – 1	ICAT4221B	Locate equipment, system and software faults	40	Core
	ICAT4242B	Perform unit test for a class	40	Core
	ICAS5118C	Manage system security	60	Elective
	PSPPM402B	Manage simple projects	60	Core

Co-requisite units

*The following units within this qualification have pre-requisites.

ICAB4219B - Apply introductory object-oriented language skills

Pre-requisite - ICAB4225B Automate processes

ICAB4222B - Apply introductory programming skills in another language

Pre-requisite - ICAB4225B Automate processes

ICAB4229B - Apply intermediate programming skills in another language

*Pre-requisite - ICAB4222B Apply introductory programming skills in another language**

**Pre-requisite - ICAB4225B Automate processes*

ICAB4232B - Maintain open source code programs

*Pre-requisite - ICAB4222B Apply introductory programming skills in another language**

**Pre-requisite - ICAB4225B Automate processes*

<p>Clients</p>	<p>CBC's clients for this qualification are dominantly international students coming from Eastern European nations, India, China, Thailand, Bangladesh, Nepal & Sri Lanka.</p> <p>Entry requirements for students:</p> <ul style="list-style-type: none"> • An overall IELTS band 5.5 or equivalent and above • 18 years and above with a High School Certificate (Year 12) • Students will / may have to meet specific pre-requisite entry criteria's depending on individual qualification requirements. <p>Qualification Pathways</p> <p>Pre-requisite units for Certificate IV in IT (Programming) –</p> <ul style="list-style-type: none"> • BSBCM106A – Follow workplace safety procedures • ICAD2012B – Design organizational documents using computing packages • ICAU1128B – Operate a personal computer • ICAU2005B – Operate a computer hardware • ICAU2006B – Operate computing packages • ICAU2013B – Integrate commercial computing packages • ICAU2231B – Use computer operating system • ICAW2001B – Work effectively in an IT environment • ICAW2002B – Communicate in the workplace <p>Pathways INTO the qualification</p> <p>Preferred pathways for candidates considering this qualification include:</p> <ul style="list-style-type: none"> • Must either produce a "Statement of Attainment" for the 9 pre-requisite units as listed above prior to enrolment / commencement. • Overseas candidates must provide evidence of successful completion of a basic computing / IT course which meets the unit outcomes of the pre-requisites as listed above. • If candidate already hold a Certificate II, III in IT, he/she will need to submit verified Certificates / Statement of Attainment for recognition purposes. Students with either a Certificate or Statement of Attainment for Certificate III / IV will be exempted from the pre-requisites units.
<p>Learning and assessment arrangements</p>	<p>Duration</p> <p>Students will have to meet the pre-requisite unit requirements prior to entering the Certificate IV qualification.</p> <p>The training program for Certificate IV in Information Technology (Programming) is conducted over a 40-weeks period. CBC Cert IV in IT program is divided into 4 terms.</p> <p>CBC students will attend class equivalent to 20 hours per week in full-time mode.</p>

Organisation – Training units combinations

The ICA40505 program contains 21 units (17 Core & 4 Electives units) and will be delivered at the organisation's training centre.

To meet the requirements of this qualification involves the completion of all 21 units.

Organisation's Delivery plan

All units within this qualification are combined into clusters (Refer to cluster breakdown). These clusters are designed to meet the co-requisites units within it. A logical sequence is maintained for all the clusters.

Where applicable unit assessments having similar elements / criteria's / outcomes will be combined with appropriate assessment tools (Refer to the assessment plan to review the assessment tools used in the qualification) to achieve holistic assessment requirements to complete the qualification.

The clusters are placed in a logical fashion to achieve critical aspects of assessments for progressive development of competency achieved from previous units / clusters. Units within clusters have multiple assessment tools to simulate / reflect real time workplace requirements.

The qualification combines face-to-face trainer led theory/practical classes involving small groups/ individual activities, in a simulated environment resembling the workplace setting as close as possible. All programs are in full-time mode and cannot be undertaken part-time or via distance education.

RPL

Students, who hold a Certificate II and/or Certificate III in IT, will need to submit verified Certificate/Statement of Attainment (issue by a RTO) for recognition purposes. Students with either a Certificate or Statement of Attainment for Certificate II and/or Certificate III in IT units will be exempted from common/elective units.

Cluster Name	Unit (s) of Competency
Analyse & Design - 1 / Build (Part A)	ICAA4041C
	ICAA4233B
	ICAW4027B
Analyse & Design - 1 / Build (Part B)	ICAD4217B
	ICAD4043B
	ICAS4023B
	ICAB4225B
	ICAA4058B
Programming – 1 (Build)	ICAB4219B
	ICAB4222B
	ICAB4075B
	ICAB4232B
Programming – 2 (Build)	ICAB4229B
	ICAB4178B
	BSBCMN304A
	ICAW4214B
	ICAB4064B
Testing – 1 / Project Management – 1	ICAT4221B
	ICAT4242B
	ICAS5118C
	PSPPM402B

Delivery modes

Simulated workplace environment

CBC ensures that the training delivered is to the standards of a real workplace environment. To meet this requirement CBC has implemented a variety of assessment tools that will be implemented during the course of the qualification. These assessment tools assess various different elements of a real / actual workplace however in a simulated training environment.

CBC meets the need for a real-time workplace simulation environment by:

- A dedicated computer lab to reflect a real-time work environment for all practical training components of the course.
- The CBC trainers represent the role of a real client and portray the workplace demands while working on projects. This includes role play of difficult & diverse type customers.
- Students prepare time lines, schedule milestones, communicate, prepare documentation, conduct training in accordance with the client (trainer)
- Working as a team (group work/assignments), fulfilling responsibilities and expectations of the job and workplace.
- Assignments, which include multi-tasking, different roles within assignments, using workplace policies and templates.

An opportunity to attend industry professional development, network and interact with industry professionals by offering membership options to the Australian Computer Society

Emphasis will be made to reflect real work situations in order to develop skills identified in the “employability skills” for this qualification. Those skills may include:

Evidence-gathering techniques / Assessment tools

A. Practical Tools

- a. Demonstration
- b. Programming / Projects
- c. Diagrammatical Representation
- d. Design Algorithm
- e. Troubleshooting

B. Witten Tools

- a. Report Writing
- b. Case Study / Scenario – Problem Solving
- c. Written Exam
- d. Research Documentation

C. Observation Tools

- a. Role Play
- b. Help Desk
- c. Presentation
- d. Discussion
- e. Oral Questioning

Combinations of these methods will be used for most situations (eg. observations and oral questioning)

Cluster	Unit of competency	A	B	C
Analyse & Design - 1 / Build (Part A)	ICAA4041C	√	√	
	ICAA4233B	√	√	
	ICAW4027B	√	√	
Analyse & Design - 1 / Build (Part B)	ICAD4217B	√	√	
	ICAD4043B	√	√	√

	ICAS4023B	√	√	√
	ICAB4225B	√		
	ICAA4058B	√	√	
Programming -1 (Build)	ICAB4219B	√	√	
	ICAB4222B	√	√	
	ICAB4075B	√	√	
	ICAB4232B	√	√	
Programming -2 (Build)	ICAB4229B	√	√	
	ICAB4178B	√	√	
	BSBCMN304A		√	√
	ICAW4214B		√	
	ICAB4064B	√	√	
Testing – 1 / Project Management –	ICAT4221B	√	√	√
	ICAT4242B	√	√	√
	ICAS5118C		√	
	PSPPM402B	√	√	√
Please contact Academic Course Coordinator (simarjeet@canterburybc.com.au) for more information on Assessment tools.				
<p>Schedule</p> <p>The training program is conducted over 40-weeks period. Please contact Academic Course Coordinator (simarjeet@canterburybc.com.au) for a copy of timetable.</p> <p>Evidence-gathering techniques takes place throughout the whole process and units of competency are assessed individually and within the cluster organisation.</p>				
<p>Delivery and assessment staff</p> <p>All trainers/Assessors hold Certificate IV in Training and Assessment TAA40104, vocational qualifications at least up to the same level they are delivering and assessing and proven relevant industry experience.</p> <p>Staff Matrix is available for review on request.</p>				

Assessment validation process

Deputy Principal (DP) & Academic Course Coordinator (ACC) meet with representatives from industry / enterprises on an annual basis to check that the performance standards required in the program are consistent with industry practice.

DP & ACC conduct moderation meetings every term, which is attended by assessors. Meetings confirm the evidence-gathering techniques and the required standards of performance and reviewing assessment tools and decisions.

ACC along with the IT faculty has the responsibility for developing, managing and monitoring strategies that ensure consistency in assessment. Validation meetings are lead by DP / ACC with the participation of assessors involved in a particular unit.

For each cluster / unit of competency there is a "bank of assessment exemplars and benchmarks" available for all trainers/assessors. These are samples of candidate work that are considered to be exemplary.

There is also a continuous feedback process in place, which involves gathering information from candidates, employers and other users of the assessment process.

Industry Consultation

CBC has liaised with the following organization / individuals for its industry consultation for ICA05 Package. Please review the minutes of meeting. Minutes of meeting are available for review on request.

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Other requirements

All staff involved in the delivery and assessment of this qualification, have direct access to the current version of the ICA05 Information & Communication Technology Training Package, including the appropriate units of competency, assessment guidelines and qualification structure.

All staff involved in delivering the program, have access to trainer, assessor and candidate support materials relevant to their areas of delivery and assessment. There is a "Cluster Folder", which include specific documents such as: Learning Program, Sessions Plans, Student Guide, Assessment Plan, Evidence Gathering Matrix, Marking Guide and Assessment Tools.

Pathways

This course provides skills for basic to intermediate level of programming requirements. Upon completion of Certificate IV qualifications following are the opportunities available:

Career & Pathway opportunities:

- Software support (H/W & S/W)
- Basic Networking
- Technical support
- Helpdesk Assistant Manager
- Software and hardware installation
- Computer programming team member
- Programmer / Developer
- Application Analyst
- Helpdesk support - Operating systems & applications
- The course also provides a foundation and path for those intending to further study at the Diploma level at CBC