

Bachelor of Computing Systems [BCS]

To be read in conjunction with Unitec's Academic Statute and associated Policies and Procedures.

These programme regulations apply to the Bachelor of Computing Systems [BCS] programme, which leads to the award of the Bachelor of Computing Systems (Level 7) qualification, (360 Credits) [CA2209].

These regulations come into effect from Semester 1, 2022.

1. Ngā Ture Hei	To be eligible for admission to this programme, all applicants must meet three admission
Whakaurunga	requirements:
Admission	a. Requirements for either general admission, special admission, or discretionary admission
Requirements	b. Any additional Programme specific requirements
	c. English language requirements
Admission	
Requirements	1.1 Whakaurunga Whānui General Admission
comply with Unitec's	To be admitted to this programme all applicants must be at least 16 years of age on the date of the programme's commencement for the semester in which they wish to enrol (or provide a completed
Admission Requirements	Early Release Exemption form), and meet the following requirements:
Guidelines.	A minimum of 42 credits at NCEA Level 3 or higher on the National Qualifications Framework, with 14
	credits at Level 3 or higher in each of two subjects, with a further 14 credits at Level 3 or higher taken
	from no more than two additional domains on the National Qualifications Framework; plus a minimum
	of 14 credits at Level 1 or higher in Mathematics or Pangarau on the National Qualifications Framework; plus a minimum of 8 credits at Level 2 or higher in English or Te Reo Maori; a minimum of
	4 credits must be in Reading and a minimum of 4 credits must be in Writing; Or
	At least 3 'C' passes in the New Zealand University Bursaries Examinations;
	Or
	Successful completion of an approved qualification at Level 3 or above within a computing related
	pathway, where appropriate.
	Or
	Equivalent.
	1.2 Whakaurunga Motuhake Special Admission
	Applicants must have:
	a. attained the age of 20 years on or before the first day of the semester in which study for the programme is to commence; and
	b. provided sufficient evidence of aptitude or appropriate work or other life experience that would indicate a successful outcome in the qualification.
	1.3 Whakaurunga Kōwhiringa Discretionary Admission
	In exceptional cases an applicant who does not meet the general admission requirements and who has not reached the age of 20 on or before the first day of the semester in which study for the Certificate is
	to commence may apply for discretionary admission. Applicants under the age of 20 may be granted
	Discretionary Admission if they have, for example:
	a. A minimum total of 72 NCEA credits at level 2 in their best four subjects, or
	A maximum total of 10 in New Zealand Sixth Form Certificate in their best 4 subjects, or equivalent; or
	c. A Certificate at level 3 or higher; or
	d. Obtained an acceptable score in the Unitec Computing aptitude test, as defined by the relevant Academic Authority.

		g whether to grant discret nt's level of preparedness	-		e primary focus will be on				
	1.4 Whaka	urunga Tautui Programı	me Specific Requiremen	ts					
		to meeting the requireme			admission the following				
	Programm	e Specific requirements m	ust be met prior to admi	ssion:					
	All applicar following:	nts will be expected to der	nonstrate mathematical	ability equivaler	nt to one or more of the				
		t least 15 NCEA credits at							
		grade of 4 or better in Ne			matics, or				
		t least 9 NCEA credits at le			thematics with Statistics				
	 have a or 	t least 45% in University B	sursary Mathematics with	n Calculus or Ma	thematics with Statistics,				
		t least 10 or more credits	in a certificate at level 3	or higher in Mat	hematics, or				
		ttained an acceptable sco							
	Autho			-					
	1.5 Whakaurunga Reo Pākehā English Language Admission Requirements Applicants must have sufficient competence in the English language to undertake this programme, which is taught and assessed in English. A minimum standard of English may be demonstrated by the achievement of a minimum of 8 credits at NCEA Level 2 in English (4 in Reading, 4 in Writing). Any applicant who cannot demonstrate this achievement will be required to provide evidence of their English language competency using the types of evidence specified for International Students.								
	International applicants must also provide evidence that they have the necessary English language proficiency required for the Programme as demonstrated through the use of evidence of one of the								
					for International Students				
	Web-page.			-					
2. Paearu		Kōwhiri Selection Crite							
Kōwhiri Tukanga		e programme is on a first on ht who misses out on a pla			-				
Selection Criteria	semester.	it who misses out on a pie	ice in the current series		ted in the following				
& Process	semester.								
	2.2 Tukang	a Kōwhiri Selection Pro	cess						
Selection Criteria	Selection w	vill be made by Unitec staf	f members with the dele	egated authority	to offer places to				
and Processes		These staff members will							
comply with		ent form. At the discretion							
Unitec's Admission	-	uired. A list of delegated s (PAQC) responsible for th		ned by the Progi	ramme Academic Quality				
Requirements	Committee		ie programme.						
Guidelines.									
3. Ngā Ture Hei	3.1 Whaka	emi Tūtukitanga Credit	Accumulation						
Whakawhiwhi		ded the Bachelor of Comp	. .						
Tohu	of 360 crec	lits in the pattern set out i	n Table 1a or 1b from th	e courses set ou	t in Table 2.				
Mātauranga Requirements for	Table 1-	redit Requirements for B	acholor of Computing C.	stame Antion 1	AE Cradit Canatana				
the Award of the	Project	rean requirements for B	achelor of computing Sy						
Programme	Level	Compulsory Credits	Elective Credits	Total Credits					
-	5	90	15	105					
	6	15	60	75	-				
Requirements	7	45	45	90	-				
comply with Unitec's	7 5-7(8)	-+-2	90	90	-				
Programme	TOTALS	150	210	90 360	-				
Completion and	IUIALS	130	210	500					

Awards Policy and associated procedure.	Table 1b: Credit Requirements for Bachelor of Computing Systems Option 2 – 60 Credit Capstone Project							
	Level	Compulsory Credits	Elective Credits	Total Credits				
	5	90	15	105				
	6	15	60	75				
	7	60	45	105				
	5-7(8)		75	75				
	TOTALS	165	195	360				

Table 2: Course Details – Bachelor of Computing Systems

Compulsory courses are shown in **bold** and Elective courses in *italics*.

Course No	Course Name	Credits	Pre- requisites	Co-requisites	Restrictions
Level 5				<u> </u>	
ISCG5400	Hardware Fundamentals	15			
ISCG5401	Operating System Fundamentals	15			
ISCG5420	Programming Fundamentals	15			
ISCG5423	Introduction to Databases	15			
ISCG5424	5424 Information Systems Concepts				
ISCG5430	Professional Skills for IT Practitioners	15			
ISCG5403	Networking Fundamentals	15			
ISCG5421	Programming Principles and Practice	15	ISCG5420		

A max. 30 credits at level 5 may be taken from any other Unitec Programme with approval of the relevant Academic Authority

Level 6					
ISCG6411	Project Planning and Control	15	ISCG5410 or ISCG5424	ISCG5430	
ISCG6401	Data Communications and Networks	15	ISCG5403	ISCG5430	
ISCG6402	Network Administration and Support	15	ISCG5400 and ISCG5403	ISCG5430	
ISCG6403	Network Operating Systems Management	15	ISCG5401	ISCG5430	
ISCG6404	Web Server Management	15	ISCG6402	ISCG5430	
ISCG6407 Fundamental Concepts in Cyber Security		15	ISCG5403		
ISCG6414	Systems Analysis and Design	15	(ISCG5410 or ISCG5424) and ISCG5421	ISCG5430	
ISCG6420	Internet and Website Development	15	ISCG5420 and ISCG5421	ISCG5430	
ISCG6421	GUI Programming	15	(ISCG5421and ISCG5423	ISCG5430	
ISCG6422	Multimedia Programming	15	ISCG5420 or	ISCG5430	
ISCG6423	Database Design and Development	15	ISCG5423 and ISCG5421)	ISCG5430	
ISCG6424	User Interface Design	15	ISCG5421	ISCG5430	
ISCG6425	Data Warehousing	15	ISCG5423		
ISCG6426	Data Structures and Algorithms	15	ISCG5421		
ISCG6435	Special Topic	15			
ISCG6441	Visual Game Design	15			

ISCG6442	Game Programming	15	ISCG5421	ISCG6426	
ISCG6488	Game Programming Negotiated Study edits at level 6 may be taken from any othe Capstone Project	15	Approval by the relevant Academic Authority AND student must have completed 180 credits towards the BCS degree.		nt Academic
			ISCG5420 & ISCG5423 & ISCG5424 & ISCG5430 & 195 BCS credits		
Or					
ISCG7430	Project	45	ISCG6411 ISCG5400 & ISCG5401 & ISCG5420 & ISCG5423 & ISCG5424 & ISCG5430 & 195 BCS credits	* See notes below	
ISCG7142	Information Systems and Analysis	15			ISCG6414
ISCG7400	Computer Systems Security	15	ISCG6402		
ISCG7401	Advanced Data Communications	15	ISCG6401		
ISCG7402	Network Design and Implementation	15	ISCG6402 and ISCG6401		
ISCG7404	Computer Forensic Investigations	15	ISCG6401 and ISCG6402		
ISCG7406	Cyber Security Policy	15	ISCG6407		
ISCG7407	Advanced Cyber Security	15	ISCG6407 and ISCG6403		
ISCG7408	Malware Analysis	15	ISCG6407		
ISCG7410	Information Systems Management	15	ISCG6411		
ISCG7411**	Project Management Methodologies	15	Relevant Academic Authority consent required		
ISCG7412**	Risk Management	15			
ISCG7413	Testing and Quality Assurance Management	15	Relevant Academic		

			Authority consent required	
ISCG7414	Business Systems Analysis	15	ISCG6414	
ISCG7420	Web Application Development	15	(ISCG6414 or ISCG7142) and ISCG6421 and ISCG6420	
ISCG7421	Advanced Program Development	15	ISCG6421) and (ISCG6414 or ISCG7142	
ISCG7424	Mobile Software Development	15	(ISCG6414 or ISCG7142) and ISCG6421	ISCG6426
ISCG7425	Java Enterprise Programming	15	ISCG6423 and ISCG6421	ISCG6426
ISCG7426	Data Mining	15	ISCG5421 & ISCG6425	ISCG6426
ISCG7427	Agile and Lean Software Delivery	15	ISCG6414	
ISCG7435	Special Topic 1	15		
ISCG7440	Advanced Game Design	15	ISCG6441	
ISCG7441	Advance Game Programming	15	ISCG6442	
ISCG7444	Cloud Application Design & Development	15	ISCG5421 or ISCG6420	
ISCG7488	Negotiated Study	15	Academic Leader Approval & completion of 240 credits towards BCS including 60 credits at Level 6 or above	

A max. 15 credits at Level 7 may be taken from any other Unitec Degree Programme with approval of the relevant Academic Authority

15 credits at Level 8 may be taken from the Unitec Postgraduate Diploma in Computing with approval of the relevant Academic Authority. Students with at least a B+ average may seek approval from the relevant Academic Authority to take 30 Level 8 credits in their final year of study.

Notes:

*Subject to review and approval of the Academic Programme Manager, students will be permitted to enrol in either ISCG7431 Capstone Project or ISCG7430 Project. ISCG7431 Capstone Project or ISCG7430 Project must be taken in the final semester of study for the BCS full- time students and final year for the part-time students.

ISCG7431 Capstone Project allows part-time option for students to complete the course over two consecutive semesters. **ISCG7411 and ISCG7412 – One re-sit allowed for the final exam

3.2 Mahi Waehanga Pāhekoheko | Integrated and Work-based components

There are no Integrated and Work-based components in this Programme

3.3 Mahi Akoranga I A Wāhanga | Course Load per Semester

The normal full-time course load is 60 credits per semester. Students who can demonstrate a 'B' average or above across the majority of their courses may undertake 75 credits with the approval of the relevant academic authority.

3.4 Whakaurunga Takiwā | Enrolment Periods

The normal enrolment period is three years (full-time study) or six years (part-time study).

	requirem suspensi The maxi 3.5 What 3.5.1 Ser To be elip a. achi degr b. achi have	nents within the r on of enrolment mum period to c kawhiwhi Tāpirip nior Scholar Awa gible for consider eved a cumulativ ree courses for w eved at least 2/3 e achieved no mo	naximum period of e for up to a maximum omplete this Program biri Additional Awar rd ration to receive a Se e Grade Point Averag hich s/he has been as of the total credits for re than 1/3 of the cred	me is eight years from the date o	nuthority may approve f first enrolment. : have: ng) or better across all n Unitec courses (i.e.				
4. Tütulütenee	1	ssment of prior l							
4. Tūtukitanga Whakamihi			nga Cross Credit	v that took place more than 5 year	rs prior to the date of				
Credit		olment in the pro							
Recognition	a. A stu	udent may be aw	arded credits or exen	ptions in recognition of successfu another programme.	ll equivalent study, at				
Credit		credit recognitio	-		6 1 1 1				
Recognition	i.			uivalence of the learning outcom	es of a completed				
complies with Unitec's	ii.		a course in the progra where the previous	mme; or tudy has taken place in a program	me with a similar				
Assessment,				natch in the programme's courses					
Moderation and	c. Cros	s credits will not	be given for a Capsto	ne Project in an Undergraduate D	egree.				
Grades Policy and									
associated		4.2 Aromatawai Tōmua Assessment of Prior Learning (APL)							
procedure.	Assessment of Prior Learning is available for all courses in this programme. APL decisions will be made on a case-by-case basis under the Unitec Assessment of Prior Learning Procedure.								
	4.3 Ngā whakawhitinga Credit Transfer There are no credit transfer arrangements for this programme.								
	4.4 Ākonga Whakawhiti Student Exchange								
	Study at an international partner institution is available in this Programme. Credit Recognition is								
	applied to the Unitec student's academic record upon their return to New Zealand.								
5. Waeture			i Assessment Basis						
Aromatawai Assessment				based using an 11-point grading s in any achievement-based cours					
Regulations	course.			in any achievement-based cours	e in order to pass that				
Assessment		anga Taumata	-						
Regulations	-		-	matical aggregation of weighted					
comply with		-	-	icipants must obtain at least 50%	overall score in order				
Unitec's Assessment,		chievement-base : Achievement b	a assessment. ased 11-point assess i	nent system					
Moderation and	Grade	Meaning	Result	Percentage					
Grades Policy and	A+	Distinction	Credits Earned	90 – 100					
associated	A	Distinction	Credits Earned	85 - 89					
procedure.	A-	Distinction	Credits Earned	80 - 84					
	B+	Merit	Credits Earned	75 – 79					
	B	Merit	Credits Earned	70 – 74					
	B-	Merit	Credits Earned	65 - 69					
	C+	Pass	Credits Earned	60 - 64					
	<u>C</u>	Pass	Credits Earned	55 – 59					
	<u> </u>	1 455							

	C-	Pass	Credi	ts Earned	50 – 54	
	D	Fail		edits Earned	40 - 49	
	E	Fail	No Cr	edits Earned	0 – 39	
	Students Table 4:	ru Taumata G s may be awarde Grade Criteria	rade Crite	eria	rades for a course:	
	Grade	Meaning		Criteria		
	CR	Credit Recog	gnition		has applied for and been awarded a credit rom another qualification	
	СТБ	Continuing			uns for more than one semester and the final ssessment has not yet occurred. No Credits	
	DEF	Deferred		Assessment b has been app student's rec original cours	has approval to complete a Course beyond the schedule date. Unless an exception roved, any Deferred Grade remaining on a ord beyond a duration equal to that of the se will be changed to the grade to which the d otherwise be entitled. No Credits earned.	
	DNC	Did not Com	plete	has either with duration; or r	IC (Did Not Complete) is recorded if a student thdrawn after 75% of the scheduled Course not attempted a compulsory item of vithin a Course. No Credits earned.	
	ES	Student Excl	tudent Exchange		nas completed an approved inter-institutional d it is not appropriate for another grade to be credits earned.	
	NGA	Course assessment and reporting of results are not A No Grade Associated required for this course or are carried out by an external agency. No Credits earned				
	R	Restricted P	d Pass The student has been awarded a restricted pass subject Relevant clause in this schedule. Credits earned.			
	w	Withdrawn		scheduled Co	withdraws from a Course after 10% of the urse duration and up to, or at, the date at the scheduled Course has passed. No credits	
	#	Estimated G	rade	estimated, th	of Summative Assessment has been e final grade will be an estimated grade, and " on the Student's Academic Record.	
6. Aromatawai	6.1 Ākor	anga Aromataw	vai Cour	se Assessment	:	
Mahinga Assessment Procedures	contribu	• •	rade for a	given course.	assessment activities. Formative assessments do no All summative assessment elements are compulsory information.	
Assessment Procedures comply with Unitec's	Students must attempt all compulsory assessment activities in order to pass and receive credit for an course. Students who do not attempt a compulsory item of assessment may be awarded a 'Did Not Complete'(DNC) for the whole course and may not earn any credits.					
Assessment Moderation and Grades Policy and associated	All stude submissi		ht to subr e assessm	mit any summa ient work in Te	tive assessment task in Te reo Māori. The process f reo Māori is governed by the Unitec Assessment ir	
procedure.	6.3 Tāna	etanga Tōmuri	Submise	sion and late s	ubmission of work	
	5.5 i upa		1 0 0 0 1 1 1 3			

- a. The due dates for all summative assessment work will be notified at the commencement of each course.
- b. Any assessment that is submitted late (and does not have a prior approved extension) will be penalised by a deduction of 10% per day of the participants assignment mark, up to five (5) days, inclusive of weekends.
- c. Applications for extensions must be made by according to procedure noted in Student Handbooks and course documentation.
- d. Any extension will be carried out within a specified time period as agreed with the relevant academic authority and no further extensions will be granted.
- e. No assignment will be accepted five (5) days (inclusive of weekends) after the due date. If the assessment is not compulsory, the participants will receive a 'zero' grade for that assignment. If the assignment is compulsory, then the participants will receive a Did Not Complete (DNC) grade for the entire course.

6.4 Whakamātautau Anō | Resubmission or Reassessment

A student may apply to undertake a resubmission/reassessment for a failed assessment which scored a 'D' grade, or 'between 45-49.9% within 5 days of receiving their marked assessment.

The following conditions apply:

- a. only one reassessment or resubmission per course.
- b. resubmission/reassessment is not available for ISCG7431 Capstone Project
- c. resubmission/reassessment is not available for any controlled assessments (i.e. tests, and examinations) with the exception of ISCG7411 and ISCG7412 where one reassessment is allowed for the final exam.
- d. Any approved resubmission/reassessment will be carried out within a specified time period as agreed with the relevant academic authority.
- e. In all cases for resubmission, the original marked assignment will accompany resubmitted assignments. If resubmitted work is not accompanied by the original marked assignment, the resubmitted work will not be marked and the original grade will stand.
- f. The maximum grade for any resubmission/reassessment of an assessment is the lowest pass grade.
- g. Assignments that are handed in late are not eligible for resubmission or reassessment.

6.5 Āhuatanga Aromatawai Motuhake | Affected Performance Consideration

A student may apply for Affected Performance Consideration (APC) if:

- The student is unable to attend an examination, compulsory assessment or fixed time and place assessment activity due to illness, injury, bereavement or other critical circumstances
- The student's preparation for, or performance in an examination or any summative assessment has been seriously impaired due to circumstances beyond their control

Applications for APC are made by a student within 5 working days of the affected assessment event. Decisions to approve an APC and to apply any remedy are made according to the Assessment and Grading Procedures and Regulations.

6.6 Pāhi Rāhui | Restricted Pass

A restricted pass may be awarded in a course which was narrowly failed and where there is ample evidence that marginal failure is compensated by good overall performance.

- a. A restricted pass is awarded at the discretion of the relevant academic authority and may not be applied for directly by a student.
- b. The relevant academic authority may, at their discretion, use a restricted pass to:
- set conditions for future performance in other courses
- prevent a student from using a restricted pass to meet the prerequisite requirements of another course.
- c. A student may decline the award of a restricted pass by notifying the relevant academic authority in writing not later than 20 working days from notification of the results.

6.7 Tuaruatanga | Repeating Courses

	Students who are repeating a Level 1–8 course would normally be required to submit all assessment items. In some cases, with the prior approval of the relevant academic authority, students may not be required to repeat an equivalent assessment item that they had previously passed. This should be negotiated within the first two weeks of the commencement of the course and will specify any course grade that will be carried over. Students may enrol and repeat a course that they have failed only once. Permission to enrol for a third time is governed by Exclusion provisions below.
	C. O. Whetherhouse and J. Faultaciana
	6.8 Whakakorenga Exclusions No student will be allowed to enrol in any course more than twice unless there are exceptional circumstances approved by the relevant academic authority.
	a. Any Student who fails to achieve at least 50 per cent of the credits that he or she is enrolled in in any 12-month period may be excluded by the relevant Academic Authority from re-enrolling in any further courses. The decision whether students can re-enrol in further courses will be based on a student's likelihood of succeeding in further study and will be made by the relevant Head of School.
	 b. When calculating the 12-month period in a. above, Unitec reserves the right to include any relevant time spent by the Student studying at another tertiary institution.
	 c. A Student who has not achieved a Pass Grade in the same Course on two occasions shall not be enrolled again for that Course except with the permission of the relevant Academic Authority. d. The relevant Academic Authority will advise the Student in writing of their decision, and the reasons for such decision, and any orders made.
	6.9 Examination Regulations
	All formal examinations in this programme are governed by the Unitec Examinations Regulations;
	6.10 Tono Pīra Appeals
	Students may appeal the decisions made under these regulations in accordance with the Student Appeal Procedure.
7. Whakaritenga	7.1 Whakamāramatanga ā-kaupapa Definition of Terms
Whānui	In these regulations, unless the context otherwise requires, the following definitions shall apply:
General	• 'Relevant academic authority' refers to an individual or role holder, or in some cases a committee,
Provisions	who have been delegated the authority to make a decision within a specific circumstance. A schedule of the various relevant academic authority delegations are maintained by the Programme Academic Quality Committee responsible for the Programme.
8 Āhuatanga Tauw	/hirowhiro Ritenga Transitional Arrangements
-	as failed a course that is no longer offered will complete an alternative course as negotiated with the
Any student who h	as failed a course that is no longer offered will complete an alternative course as negotiated with the

Any student who has failed a course that is no longer offered will complete an alternative course as negotiated with the Academic Programme Manager. No student will be adversely affected by these changes.

9. Regulation Version Control

Ver No.	Approved by	Date of Change	Effective from	Description of change
1.1				Various as described in previous iterations of Regulations.
1.2	AACSC	09/08/2021	2022-Sem1	 Reformat regulations to remove reference to discontinued Bachelors Generic Regulations. Inactivate electives that are no longer offered and delete them from the programme - ISCG5422, HTCS5700, ISCG6400, ISCG6410, ISCG6412, ISCG6413, ISCG6432, ISCG6433, ISCG6434, ISCG6436, ISCG7409, ISCG7422, ISCG7423, ISCG7436, ISCG7443, ISCG7445, ISCG7446. Add GDCMP course ISCG7142 Information Systems and Analysis as an elective. This is already allowed under the regulations and formally adding it simply streamlines student enrolment in this elective. Modify requisites to accommodate above changes, to remove obsolete inactive course references, and to simplify re-enrolment for students. Courses: ISCG6404, ISCG6414, ISCG6420, ISCG6421, ISCG6422, ISCG6423, ISCG6424, ISCG6435, ISCG7400, ISCG7401, ISCG7402, ISCG7407, ISCG7413, ISCG7420, ISCG7421, ISCG7424.

		•	Modify requisites for ISCG7430 Project to match ISCG7431 Capstone Project to remove confusion for students.