

# PROGRAMME REGULATIONS

## Programme Schedule

### Bachelor of Computing Systems

To be read in conjunction with [Bachelors Generic Regulations](#).

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#### 1. Programme Schedule

This Programme Schedule applies to the Bachelor of Computing Systems (BCS) Level 7 credits 360.

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#### 2. Programme Specific Admission

##### 2.1 Specific Admission

To be admitted to this programme, all applicants must meet the following requirements in addition to the requirement set out in the Bachelor's Generic Regulations:

All applicants will be expected to demonstrate mathematical ability equivalent to one or more of the following:

- have at least 15 NCEA credits at level 2 in Mathematics, or
- have a grade of 4 or better in New Zealand Sixth Form Certificate Mathematics, or
- have at least 9 NCEA credits at level 3 in Mathematics, or
- have at least 45% in University Bursary Mathematics with Calculus or Mathematics with Statistics, or
- have at least 10 or more credits in a certificate at level 3 or higher in Mathematics, or
- have attained an acceptable score in an aptitude test approved by the relevant Academic Authority.

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#### 3. 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

- b. 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 Department of Computing aptitude test, as defined by the relevant Academic Authority.

## 4. Selection Process

When the number of applications for admission exceeds the number of places available, the following selection criteria will be applied.

Entry to the programme is on a first come first served basis until there are no further places available. An applicant who misses out on a place in the current semester will be accepted in the following semester.

## 5. Requirements for the Award of the Qualification

### 5.1 Bachelor of Computing Systems

To be awarded the Bachelor of Computing Systems a student must successfully complete 360 credits, accumulated in the pattern set out in Table 1a and 1b, from the courses set out in Table 2, including all compulsory courses and any pre- and co-requisites specified.

**Table 1a: Credit Accumulation**

Level	Total	Compulsory	Electives
5	105	90	15
6	75	15	60
7	90	45*	45
5-7(8)	90**		90
<b>TOTAL</b>	<b>360</b>	<b>150</b>	<b>210</b>

\*Applies to students taking 45-credit course ISCG7430 (see section 10)

\*\* 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

**Table 1b: Credit Accumulation**

Level	Total	Compulsory	Electives
5	105	90	15
6	75	15	60
7	105	60*	45
5-7 (8)	75**		75
<b>TOTAL</b>	<b>360</b>	<b>165</b>	<b>195</b>

\*Applies to students taking 60-credit course ISCG7431

\*\* 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

### 5.2 Course details

**Table 2: Courses for Bachelor of Computing Systems**

Compulsory courses are shown in **bold**.

Elective courses are shown in *italics*.

Level	Course No.	Course Name	Credits	Prerequisites	Co-requisites
<b>Level 5</b>					
5	<b>ISCG5400</b>	<b>Hardware Fundamentals</b>	<b>15</b>		
5	<b>ISCG5401</b>	<b>Operating System Fundamentals</b>	<b>15</b>		
5	<b>ISCG5420</b>	<b>Programming Fundamentals</b>	<b>15</b>		
5	<b>ISCG5423</b>	<b>Introduction to Databases</b>	<b>15</b>		
5	<b>ISCG5424</b>	<b>Information Systems Concepts</b>	<b>15</b>		
5	<b>ISCG5430</b>	<b>Professional Skills for IT Practitioners</b>	<b>15</b>		
5	<i>ISCG5403</i>	<i>Networking Fundamentals</i>	15		
5	<i>ISCG5421</i>	<i>Programming Principles and Practice</i>	15	<i>ISCG5420</i>	
5	<i>ISCG5422</i>	<i>Multimedia and Website Development</i>	15		
5	<i>HTCS5700</i>	<i>Cyber Security Principles</i>	15		
<i>A maximum of 30 Level 5 credits approved by the relevant Academic Authority</i>					
<b>Level 6</b>					
6	<b>ISCG6411</b>	<b>Project Planning and Control</b>	<b>15</b>	<b>ISCG5410 or ISCG5424</b>	<b>ISCG5430</b>
6	<i>ISCG6400</i>	<i>Hardware Technology</i>	15	<i>ISCG5400</i>	<i>ISCG5430</i>
6	<i>ISCG6401</i>	<i>Data Communications and Networks</i>	15	<i>ISCG5403</i>	<i>ISCG5430</i>
6	<i>ISCG6402</i>	<i>Network Administration and Support</i>	15	<i>ISCG5400 and ISCG5403</i>	<i>ISCG5430</i>
6	<i>ISCG6403</i>	<i>Network Operating Systems Management</i>	15	<i>ISCG5401</i>	<i>ISCG5430</i>
6	<i>ISCG6404</i>	<i>Web Server Management</i>	15	<i>(ISCG6402 or ISCG6225) and (ISCG5422 or ISCG5242)</i>	<i>ISCG5430</i>
6	<i>ISCG6407</i>	<i>Fundamental Concepts in Cyber Security</i>	15	<i>ISCG5403</i>	
6	<i>ISCG6410</i>	<i>Information Gathering</i>	15	<i>ISCG5410</i>	
6	<i>ISCG6412</i>	<i>Help Desk</i>	15	<i>ISCG5410</i>	<i>ISCG5430</i>
6	<i>ISCG6413</i>	<i>Testing and Quality Assurance in ICT</i>	15		<i>ISCG5430</i>
6	<i>ISCG6414</i>	<i>Systems Analysis and Design</i>	15	<i>(ISCG5410 or ISCG5424) and (ISCG5421 or ISCG5236)</i>	<i>ISCG5237 or ISCG5430</i>
6	<i>ISCG6420</i>	<i>Internet and Website Development</i>	15	<i>(ISCG5422 or ISCG5242) and ISCG5420</i>	<i>ISCG5430</i>
6	<i>ISCG6421</i>	<i>GUI Programming</i>	15	<i>(ISCG5421 or ISCG5239) and</i>	<i>ISCG5430</i>

Level	Course No.	Course Name	Credits	Prerequisites	Co-requisites
				ISCG5423	
6	ISCG6422	Multimedia Programming	15	(ISCG5420 or ISCG5235) & (ISCG5422 or ISCG5242)	ISCG5430
6	ISCG6423	Database Design and Development	15	ISCG5423 and ISCG5421	ISCG5430
6	ISCG6424	User Interface Design	15	ISCG5421 or ISCG5239 or ISCG5422 or ISCG5242	ISCG5430
6	ISCG6425	Data Warehousing	15	ISCG5423	
6	ISCG6426	Data Structures and Algorithms	15	ISCG5421	
6	ISCG6432	ICT Industry Culture	15	ISCG5430	
6	ISCG6433	ICT Customer Service Centre Skills	15	ISCG5430	
6	ISCG6434	ICT Technical Project	30	At least 180 credits	
6	ISCG6436	ICT Technical Solutions	15	At least 120 credits	
6	ISCG6435	Special Topic	15		
		A maximum of 30 Level 6 credits approved by the relevant Academic Authority			
6	ISCG6441	Visual Game Design	15		
6	ISCG6442	Game Programming	15	ISCG5421	ISCG6426
6	ISCG6488	Negotiated Study	15	Approval by the relevant Academic Authority AND student must have completed 180 credits towards the BCS degree.	
<b>Level 7</b>					
7	ISCG7431  Or  ISCG7430	Capstone Project    Project	60    45	<b>For ISCG7431:</b> <b>ISCG6411 &amp; ISCG5400 &amp; ISCG5401 &amp; ISCG5420 &amp; ISCG5423 &amp; ISCG5424 &amp; ISCG5430 &amp; 195 BCS credits.</b>	See notes * and ** below

Level	Course No.	Course Name	Credits	Prerequisites	Co-requisites
				<b>For ISCG7430: (ISCG6411 or ISCG6231).</b>	
7	ISCG7400	Computer Systems Security	15	ISCG6402 or ISCG6225	
7	ISCG7401	Advanced Data Communications	15	ISCG6401 or ISCG6221	
7	ISCG7402	Network Design and Implementation	15	(ISCG6402 or ISCG6225) and (ISCG6401 or ISCG6221)	
7	ISCG7404	Computer Forensic Investigations	15	ISCG6401 and ISCG6402	
7	ISCG7406	Cyber Security Policy	15	ISCG6407	
7	ISCG7407	Advanced Cyber Security	15	ISCG6407 and ISCG6400 and ISCG6403	
7	ISCG7408	Malware Analysis	15	ISCG6407	
7	ISCG7409	Cyber Security for Finance Professionals	15		
7	ISCG7410	Information Systems Management	15	ISCG6411	
7	ISCG7411***	Project Management Methodologies	15	Relevant Academic Authority consent required	
7	ISCG7412***	Risk Management	15	Relevant Academic Authority consent required	
7	ISCG7413	Testing and Quality Assurance Management	15	ISCG6413 or ISCG6243	
7	ISCG7414	Business Systems Analysis	15	ISCG6414	
7	ISCG7420	Web Application Development	15	(ISCG6414 or ISCG7132 or ISCG7142) and (ISCG6421 or ISCG6222) and (ISCG6420 or ISCG6240)	
7	ISCG7421	Advanced Program Development	15	(ISCG6421 or ISCG6222) and (ISCG6414 or ISCG7142 or ISCG7132)	

Level	Course No.	Course Name	Credits	Prerequisites	Co-requisites
7	ISCG7422	Multimedia Application Development	15	ISCG6422 or ISCG6241	
7	ISCG7423	Systems Analysis and Software Development	15	(ISCG6421 or ISCG6222) and (ISCG6414 or ISCG7142 or ISCG7132)	
7	ISCG7424	Mobile Software Development	15	(ISCG6414 or ISCG7132 or ISCG7142) and (ISCG6421 or ISCG6222)	ISCG6426
7	ISCG7425	Java Enterprise Programming	15	ISCG6423 and ISCG6421	ISCG6426
7	ISCG7426	Data Mining	15	ISCG5421 & ISCG6425	ISCG6426
7	ISCG7427	Agile and Lean Software Delivery	15	ISCG6414	
7	ISCG7435	Special Topic 1	15		
7	ISCG7436	Special Topic 2	15		
7	ISCG7440	Advanced Game Design	15	ISCG6441	
7	ISCG7441	Advance Game Programming	15	ISCG6442	
7	ISCG7443	ICT Technical Solutions	15	At least 180 credits and Relevant Academic Authority Consent required	
7	ISCG7444	Cloud Application Design & Development	15	ISCG5421 or ISCG6420	
7	ISCG7445	Health Software Analysis & Design	15	ISCG6414	
7	ISCG7446	Advanced Data Engineering	15	ISCG6423 and ISCG6425	ISCG6426
7	ISCG7488	Negotiated Study	15	Academic Leader Approval & completion of 240 credits towards BCS including 60 credits at Level 6 or above	
Any Level 7 course approved by the relevant Academic Authority					
<b>Level 8</b>					
8		Postgraduate Diploma in	15		

Level	Course No.	Course Name	Credits	Prerequisites	Co-requisites
		<i>Computing at Unitec approved by the relevant Academic Authority</i>			

**Notes:**

\*Subject to review and approval of the Head of Practice Pathway, or a delegated Academic Leader, 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.

SCG7431 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

### 5.3 Progress through the degree

Except in exceptional circumstances and as approved by the relevant Academic authority, the maximum time for completion of this degree is 6 years from the date of first enrolment.

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## 6.

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### 6. Assessment

#### 6.1 Assessment basis

- a. All assessment is achievement based using an 11 point grading scale.

#### 6.2 Calculation of course grades.

- a. Course grades are calculated by the mathematical aggregation of weighted assessment marks. The following course grades shall be awarded to students who obtain the following marks:

**Table 4: Course Grades**

Grade	Percentage	Result
A+	90 – 100	Pass
A	85 – 89	Pass
A-	80 – 84	Pass
B+	75 – 79	Pass
B	70 – 74	Pass
B-	65 – 69	Pass
C+	60 – 64	Pass
C	55 – 59	Pass
C-	50 – 54	Pass
D	40 – 49	Fail
E	0 - 39	Fail

- b. Students may be awarded one of the following grades for a course if they meet the criteria described.

Grade	Criteria
CR	The student has applied for and been awarded a credits recognition from another qualification
DEF	The course result has been deferred
R	The student has been awarded a restricted pass subject to clause 8.3 of this schedule
W	If a student withdraws from a course after the 10% date of the course is completed and up to or at the 75% date of the course. No credits earned.
DNC	A student has either withdrawn after the 75% date of the course has been taught or not attempted a compulsory item of assessment within a course. No Credits earned.

### 6.3 Late Submission

Assignments submitted up to 72 hours late without Special Assessment Circumstances (SAC) approval, would be marked, subject to penalties, as follows:  
 10% of the marks deducted if submitted within 24 hours of the deadline  
 20% of the marks deducted if submitted after 24 hours and up to 48 hours of the deadline  
 30% of the marks deducted if submitted after 48 hours and up to 72 hours of the deadline.

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## 7. General Provisions

7.1 In courses where safety is concerned, an attendance requirement may be stipulated in the relevant course schedule.

### 7.2 Course Load

Students are allowed to enrol in a maximum of 60 credits per semester. Only students with B average or above can enrol in a maximum 75 credits per semester, on permission from the relevant Academic Authority.

### 7.3 Exclusion from the Programme

Any student who, over the period covered by the last four semesters of his or her studies at Unitec, including relevant study at other institutions, has not achieved a Pass Grade in courses equivalent to one half or more of the credits in which he or she has been enrolled over that period, shall be excluded from enrolment in assessed courses in any Programme, and shall not be permitted to re-enrol in any programme without the prior permission of the relevant Academic Authority, in accordance with the Academic Management Policy.

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## 8. Transitional Arrangements

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## 9.

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## 9. Commencement

These regulations come into force from Summer Semester, 2018.