

**Bachelor of Computer Systems Engineering
(Honours)/Bachelor of Computer Science
Program Code: 40088
CRICOS Code: 088927C**



Transition Arrangements

Last Updated October 2020

The following description outlines the approved transition arrangements for students who commenced in the Bachelor of Computer Systems Engineering (Honours) in or prior to 2021. Students who commence the program in 2021 onwards must complete the courses and follow the program structure that is outlined in the [Program Handbook](#). If you need further advice, then please contact your Academic Program Advisor on programadvice@newcastle.edu.au.

Course Code and Title (Not yet completed)	New Course Code and Title (Course to be completed from 2021 onwards as offered)
<p>'Completed' means successfully passed a course or received approved credit for a course</p>	
<p>CORE COURSES</p>	
<p><u>Mathematics Core Option</u> <u>Option 1</u> MATH1110 Mathematics for Engineering, Science and Technology 1 AND MATH1120 Mathematics for Engineering, Science and Technology 2 OR <u>Option 2</u> MATH1210 Mathematical Discovery 1 AND MATH1220 Mathematical Discovery 2</p>	<p>MATH1110 Mathematics for Engineering, Science and Technology 1 AND MATH1120 Mathematics for Engineering, Science and Technology 2 <i>Please note:</i> <i>After 2021, the option to do MATH1210 and MATH1220 has been removed from the program.</i> <i>From 2021 onwards:</i> <i>1) if you have not yet completed MATH1210 you must complete MATH1110; and</i> <i>2) if you haven't completed MATH1220 then you must complete MATH1120.</i></p>
	<p>ELEC2720 Introduction to Embedded Computing</p>
<p>SENG3400 Network and Distributed Computing</p>	<p>*Select 10 units of directed courses.</p>
<p>ELEC3850 Electrical Engineering Design and Practice</p>	<p>*Select 10 units of directed courses.</p>
<p>SENG2050 Web Engineering</p>	<p>If you not completed SENG2050 prior to 2021, then you will complete</p>

	COMP3500 Security Attacks: Analysis and Mitigation Strategies ** (COMP3500 <i>will count in place of</i> SENG2050)
--	--

***SENG3400 Network and Distributed Computing and ELEC3850 Electrical Engineering Design and Practice**

In 2019, SENG3400 Network and Distributed Computing was removed from the program and replaced by 10 units of Computer Systems Engineering directed courses. If you have previously completed SENG3400 you do not need to complete 10 units of Computer Systems Engineering directed courses.

In 2020, ELEC3850 Electrical Engineering Design and Practice was removed from the program and replaced by 10 units of Computer Systems Engineering directed courses. If you have previously completed ELEC3850 you do not need to complete 10 units of Computer Systems Engineering directed courses.

Computer Systems Engineering Directed List	
Course Code and Title (Not yet completed)	New Course Code and Title (Course to be completed from 2021 onwards as offered)
‘Completed’ means successfully passed a course or received approved credit for a course	
DIRECTED COURSES	
Choose 10 units from the following directed courses	
PHYS3360 Advanced Electromagnetism	If you have not yet done this course, then choose another Directed course from the list.
ELEC4700 Advanced Computer Systems	ELEC4740 Internet of Things
COMP3330 Machine Intelligence	COMP3330 Machine Intelligence
ELEC3400 Signal Processing	ELEC3400 Signal Processing
ELEC4210 Electronics Design	ELEC4210 Electronics Design
ELEC4550 Wireless Communication	If you have not yet done this course, then choose another Directed course from the list.
	COMP3260 Data Security
	COMP3330 Machine Intelligence
	COMP3340 Data Mining
	COMP3600 Security Standards and Practices in Industry
	SENG2200 Programming Languages and Paradigms

****SENG2050 Web Engineering and COMP3500 Security Attacks: Analysis and Mitigation Strategies**

- From 2021 onwards SENG2050 Web Engineering (10 units) was removed from the program and COMP3500 Security Attacks: Analysis and Mitigation Strategies (10 units) was added as a new core course.
- **If you completed SENG2050** prior to 2021 it still counts towards your program. You do not have to complete COMP3500 Security Attacks: Analysis and Mitigation Strategies. Students in

this situation who **also** have an available 10-unit Elective course are permitted to choose COMP3500 as one 10-unit Elective course.

- **If you did not complete SENG2050 prior to 2021** then you must complete COMP3500.

Computer Systems and Robotics Major	
Course Code and Title (Not yet completed)	New Course Code and Title (Course to be completed from 2021 onwards as offered)
'Completed' means successfully passed a course or received approved credit for a course	
Compulsory courses – 30 units	Compulsory courses – 20 units
SENG2200 Programming Languages and Paradigms	Removed from Compulsory list
COMP3290 Compiler Design	COMP3290 Compiler Design
COMP3330 Machine Intelligence	COMP3330 Machine Intelligence
Directed Courses – 10 units	
	SENG2200 Programming Languages and Paradigms
COMP3260 Data Security	COMP3260 Data Security
COMP3320 Computer Graphics	COMP3320 Computer Graphics
COMP3350 Advanced Database	COMP3350 Advanced Database
ELEC3400 Signal Processing	ELEC3400 Signal Processing
SENG3320 Software Verification and Validation	SENG3320 Software Verification and Validation
ELEC4210 Electronics Design	ELEC4210 Electronics Design
ELEC4550 Wireless Communication	ELEC4550 Wireless Communication

Majors in Teach-out

From 2019 the Software Development and Data Science majors will be unavailable to commencing students. Students who commenced in the program prior to 2019 will still be able to continue in these majors, however, they will no longer be listed on the program handbook.

It is recommended that students who are continuing in the Software Development or Data Science majors follow the teach-out arrangements as listed below. If you require further enrolment advice, please contact your Academic Program Advisor (programadvice@newcastle.edu.au).

Software Development major	
Course Code and Title (Not yet completed)	New Course Code and Title (Course to be completed from 2021 onwards as offered)
'Completed' means successfully passed a course or received approved credit for a course	
Compulsory courses – 30 units	Compulsory courses – 20 units

COMP3350 Advanced Database	COMP3350 Advanced Database
SENG3320 Software Verification and Validation	SENG3320 Software Verification and Validation
INFT3100 Project Management	Removed from Compulsory list
Directed Courses – Select 10 units	
COMP3260 Data Security	COMP3260 Data Security
COMP3320 Computer Graphics	COMP3320 Computer Graphics
COMP3350 Advanced Database	COMP3350 Advanced Database
INFT2150 Business Analysis	INFT2150 Business Analysis
INFT3950 Games Design	INFT3950 Games Design
INFT3960 Games Production	INFT3960 Games Production

Data Science major Course Code and Title (Not yet completed)	New Course Code and Title (Course to be completed from 2021 onwards as offered)
'Completed' means successfully passed a course or received approved credit for a course	
Compulsory courses – 30 units	Compulsory courses – 40 units
STAT1070 Statistics for the Sciences	STAT1070 Statistics for the Sciences
COMP3330 Machine Intelligence	COMP3330 Machine Intelligence
COMP3350 Advanced Database	COMP3350 Advanced Database
	COMP3340 Data Mining*
Directed Courses – 10 units	Directed Courses – 0 units
MATH2320 Linear Algebra	No longer required for this major
COMP3260 Data Security	
COMP3340 Data Mining	

***Please note the addition of COMP3340 Data Mining has increased the units required to complete this major from 400 units to 410 units.**