## CHECKLIST Bachelor of Engineering (Honours) – Civil Engineering Specialisation: Transition to new program

\* This checklist is for the BE(Hons) component ONLY for dual programs with Bachelor of Mathematics and Bachelor of Science

Full name:	Student Number:	Date:
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## Points to note

- You need to ensure that you meet minimum program and major requirements (listed below)
- You cannot count the same course twice
- You need to ensure that you don't take courses that are incompatible with courses that you have already counted towards your program, and that any prerequisites have been met
- Please ensure you read the program rules to check for any special rules with your dual program, as course restrictions may apply
- Please contact the relevant Faculty for information regarding the other component of your dual program

For the BE(Hons) component, with a specialisation in Civil Engineering:

- (a) 60 units from the BE(Hons) component, comprising—
  - I. 8 units for all BE(Hons) Core Courses; and
  - II. 36 units for one Specialisation in Civil Engineering; and
  - III. One of the following:
    - a. 16 units for one Major from Civil Engineering Major Options\*, or
    - b. 16 units for Civil Engineering Minor Options\*\*, or
    - c. 16 units for Civil Engineering Specialisation No Major option

<sup>\*\*</sup>Minors available in: Data Science; Computing, Design

√/X compl.	You must complete (NEW Program requirements)	Sem offering	#	First offered	Approved substitution	Last offered
	8 units for all: Core Courses					
	ENGG1100 Professional Engineering	1,2	2		Course must be completed [ENGG1211 (4 units) will count as 2 units towards Part A in lieu of ENGG1100, and 2 units towards program electives]	
	ENGG1001 Programming for Engineers (NEW) or CSSE1001 Introduction to Software Engineering	1,2	2	1/21	Course must be completed	
	MATH1051 Calculus & Linear Algebra I or MATH1071 Advanced Calculus & Linear Algebra I	1,2	2		Course must be completed	
	MATH1052 Multivariate Calculus & Ordinary Differential Equations or MATH1072 Advanced Multivariate Calculus & Ordinary Differential Equations	1,2	2		Course must be completed	

Checked by (Faculty: Name and Date):	
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<sup>\*</sup>Majors available in: Environmental Engineering; General Civil Engineering; Geotechnical Engineering; Mining Engineering; Structural Engineering; Transport Engineering; Water and Marine Engineering

√/X compl.	2021 Civil Engineering specialisation list (36 units)	Sem offering	#	First offered	Approved substitution	Last offered
	28 units for all: Compulsory Courses					
	ENGG1700 Statics & Materials (NEW)	1,2	2	1/21	ENGG1400 Engineering Mechanics: Statics and Dynamics (discontinued)	2/20
	CIVL2131 Environmental Fluid Mechanics	1	2		Course must be completed	
	CIVL2135 Environmental Engineering: An Introduction for Civil Engineers	1	2		CIVL2135 Environmental Issues and Sustainability in Engineering	
	CIVL2210 Fundamentals of Soil Mechanics	2	2		Course must be completed	
	CIVL2330 Structural Mechanics	1	2		Course must be completed	
	CIVL2420 Fundamentals of Transport Engineering (NEW)	2	2	2/22	CIVL2410 Sustainable Transport Engineering - Traffic Analysis (discontinued)	1/21
	CIVL2530 Statistics and Data Analysis	1	2		CIVL2530 Probability and Statistics in Engineering	
	CIVL3155 Hydrology and Free Surface Flows (NEW)	2	2	2/22	CIVL3141 Hydrology and Hydrological Risk (discontinued) and CIVL3140 Hydraulics of Engineered and Natural Waterways (discontinued) [Both courses are required to have been completed to exempt students from CIVL3155; therefore 2 units will count as a Compulsory Course and 2 units will count towards Civil Engineering Advanced Electives]	2/21
	CIVL3210 Geotechnical Engineering	1	2		Course must be completed	
	CIVL3360 Reinforced Concrete Design	2	2	2/22	CIVL2360 Design of Concrete Structures (discontinued)	2/21
	CIVL3520 Project Management and Professional Practice (NEW)	2	2	2/23	CIVL3510 Project Management with Building Information Modelling (discontinued)	2/22
	CIVL3530 Data Analytics in Civil Engineering (NEW)	1	2	1/22	Course must be completed	
	CIVL4170 Risk Analysis and Assessment	1	2		Course must be completed	
	CIVL4514 Design in the Built Environment (changes to sem 2 in 2024) or CIVL4516 Design for the Natural Environment	2 2	2		CIVL4514 Integrated Design or CIVL4516 Integrated Design for Environmental Environment If both courses are completed, 2 units will count as a Compulsory Course and 2 units will count towards Civil Engineering Advanced Electives	1/23
	2-4 units from: Civil Engineering Research Courses					
	CIVL4600 Research Project	1,2	2	1/23	CIVL4560 Project (2)	2/22

CIVL4604 Research Thesis (NEW)	1,2	4	1/23	Students who have completed CIVL4580 or CIVL4583 or CIVL4582 or CIVL4584 will receive credit for CIVL4604 or CIVL4606	
CIVL4606 Research Thesis (NEW)	2,1		2/23	dicate for cive-root of cive-root	
2-4 units from:					
Civil Engineering Advanced Electives  CIVL3220 Rock Mechanics (NEW)	2	2	2/23	MINE3121 Mining Geomechanics (discontinued)	1/2
CIVL3340 Structural Analysis	1	2		No substitution	
CIVL3380 Structural and Steel Design (NEW)	1	2	1/23	CIVL2340 Design of Steel Structures (discontinued)	2/2
CIVL3390 Integrated Structural Design	2	2	2/23	CIVL3350 Integrated Structural Design (discontinued)	2/2
CIVL3420 Sustainable Transport Engineering – Planning and Design	1	2		No substitution	
CIVL4145 Groundwater Modelling and Management (NEW)	2	2	2/22	CIVL4140 Contaminant Transport Modelling (discontinued)	1/2
CIVL4230 Advanced Soil Mechanics	2	2		No substitution	
CIVL4270 Geotechnical Investigation & Testing	1	2		No substitution	
CIVL4280 Applied Rock Mechanics	2	2			
CIVL4333 Advanced Concrete Design	1	2		No substitution	
CIVL4334 Design of Timber Structures	2	2		No substitution	
CIVL4340 Wind Engineering	1	2		No substitution	
CIVL4450 Traffic Flow Theory and Emerging Technologies	2	2		No substitution	
CIVL4460 Highway Geometric Design	2	2		CIVL4460 Road Design	
CIVL4522 Analytical Methods for the Design of Construction Operations	2	2		No substitution	
CIVL4525 Sustainable Infrastructure Design (NEW)	2	2	2/23	CIVL4180 Sustainable Built Environment (discontinued)	1/2
CIVL6111 Ocean, Coastal & Estuarine Engineering (NEW)	2	2	2/23	CIVL4110 Coastal & Estuarine Engineering (discontinued)  * CIVL4110 may only be used as approved substitution for CIVL6111 OR CIVL6112 – not both	2/2:
CIVL6112 Hydro- and Marine Power Renewable Energy Systems (NEW)	2	2	2/23	CIVL4110 Coastal & Estuarine Engineering (discontinued)  * CIVL4110 may only be used as approved substitution for CIVL6111 OR CIVL6112 – not both	2/2
CIVL6121 Environmental Hydraulics and Flood Management (NEW)	1	2	1/23	CIVL4120 Advanced Hydraulic Engineering and Structures (discontinued)	2/2
CIVL6210 Dam Engineering (NEW)	2	2	2/23	No substitution	

CIVL6215 Ground Improvement (NEW)	1	2	1/23	No substitution	
CIVL6220 Tailings Design (NEW)	1	2	1/23	No substitution	
CIVL6250 Underground Structures (NEW)	2	2	2/23	No substitution	
CIVL6360 Advanced Structural Analysis (NEW)	2	2	2/23	CIVL4332 Advanced Structural Analysis (discontinued)	2/22
CIVL6410 Transport Network Modelling (NEW)	1	2	1/23	No substitution	
CIVL6415 Traffic Analysis and Simulation (NEW)	2	2	2/23	No substitution	
ENVE3150 Environmental System Dynamics and Modelling	2	2	2/21	CIVL3150 Modelling of Environmental Systems (discontinued)	2/20
ENVE3160 Environmental Phenomena (NEW)	1	2	1/23	No substitution	
ENVE4610 Engineering the Circular Economy (NEW)	1	2	1/23	No substitution	
FIRE3700 Introduction to Fire Safety Engineering	1	2		No substitution	
FIRE4610 Fire Engineering Design: Solutions for Implicit Safety	1	2		No substitution	
2 units from Program Electives					

## Civil Engineering No Major Option

Students must complete 16 units comprising -

- i. 8 to 16 units from Civil Engineering Advanced Electives; and
- ii. 0 to 8 units from any Civil Engineering Breadth Electives; and
- iii. 0 to 4 units from Program Electives; and
- iv. 0 to 4 units from General Electives.

√/X	8 to 16 units from:	Sem	#	First	Approved substitution	Last offered
compl.	Civil Engineering Advanced Electives	offering		offered		
	CIVL3220 Rock Mechanics (NEW)	2	2	2/23	MINE3121 Mining Geomechanics (discontinued)	1/22
	CIVL3340 Structural Analysis	1	2		No substitution	
	CIVL3380 Structural and Steel Design (NEW)	1	2	1/23	CIVL2340 Design of Steel Structures (discontinued)	2/22
	CIVL3390 Integrated Structural Design	2	2	2/23	CIVL3350 Integrated Structural Design (discontinued)	2/22
	CIVL3420 Sustainable Transport Engineering – Planning and Design	1	2		No substitution	
	CIVL6111 Ocean, Coastal & Estuarine Engineering (NEW)	2	2	2/23	CIVL4110 Coastal & Estuarine Engineering (discontinued)  * CIVL4110 may only be used as approved substitution for CIVL6111 OR CIVL6112  not both	2/21
	CIVL6112 Hydro- and Marine Power Renewable Energy Systems (NEW)	2	2	2/23	CIVL4110 Coastal & Estuarine Engineering (discontinued)  * CIVL4110 may only be used as approved substitution for CIVL6111 OR CIVL6112  not both	2/21
	CIVL6121 Environmental Hydraulics and Flood Management (NEW)	1	2	1/23	CIVL4120 Advanced Hydraulic Engineering and Structures (discontinued)	2/22
	CIVL4145 Groundwater Modelling and Management (NEW)	2	2	2/22	CIVL4140 Contaminant Transport Modelling (discontinued)	1/21
	CIVL4230 Advanced Soil Mechanics	2	2		No substitution	
	CIVL4270 Geotechnical Investigation & Testing	1	2		No substitution	
	CIVL4280 Applied Rock Mechanics	2	2		CIVL4280 Advanced Rock Mechanics	
	CIVL4333 Advanced Concrete Design	1	2		No substitution	
	CIVL4334 Design of Timber Structures	2	2		No substitution	
	CIVL4340 Wind Engineering	1	2		No substitution	
	CIVL4450 Traffic Flow Theory and Emerging Technologies	2	2		No substitution	
	CIVL4460 Highway Geometric Design	2	2		CIVL4460 Road Design	
	CIVL4522 Analytical Methods for the Design of Construction Operations	2	2		No substitution	
	CIVL4525 Sustainable Infrastructure Design (NEW)	2	2	2/23	CIVL4180 Sustainable Built Environment (discontinued)	1/20

Once you have completed the checklist, you may either email your checklist to the Faculty on <a href="mailto:enquiries@eait.uq.edu.au">enquiries@eait.uq.edu.au</a> or book an appointment with an Academic Advisor directly.

BE(Hons) Transition Plan – Civil Engineering NEW

Checked by (Faculty: Name and Date):

CIVL6210 Dam Engineering (NEW)	2	2	2/23	No substitution	
CIVL6215 Ground Improvement (NEW)	1	2	1/23	No substitution	
CIVL6220 Tailings Design (NEW)	1	2	1/23	No substitution	
CIVL6250 Underground Structures (NEW)	2	2	2/23	No substitution	
CIVL6360 Advanced Structural Analysis (NEW)	2	2	2/23	CIVL4332 Advanced Structural Analysis (discontinued)	2/22
CIVL6410 Transport Network Modelling (NEW)	1	2	1/23	No substitution	
CIVL6415 Traffic Analysis and Simulation (NEW)	2	2	2/23	No substitution	
ENVE3150 Environmental System Dynamics and Modelling	2	2	2/21	CIVL3150 Modelling of Environmental Systems (discontinued)	2/20
ENVE3160 Environmental Phenomena (NEW)	1	2	1/23	No substitution	
ENVE4610 Engineering the Circular Economy (NEW)	1	2	1/23	No substitution	
FIRE3700 Introduction to Fire Safety Engineering	1	2		No substitution	
FIRE4610 Fire Engineering Design: Solutions for Implicit Safety	1	2		No substitution	
0 to 8 units from:					
Civil Engineering Breadth Electives					
MATH2001 Calculus and Linear Algebra II	1,2,5	2		MATH2000 Calculus and Linear Algebra II (discontinued)	

Civil Engineering Breadth Electives can also be chosen from course lists for the following majors:

- o Environmental Engineering
- o General Civil Engineering
- o Geotechnical Engineering
- o Mining Engineering
- o Structural Engineering
- o Transport Engineering
- o Water and Marine Engineering

Courses on this list may require pre-requisites. Please seek academic advice if required.

√/X compl.	Major in Environmental Engineering (16 units)	Sem offering	#	First offered	Approved substitution	Last offered
	8 units for all: Environmental Engineering Compulsory Courses					
	ENVE2501 Environmental Systems	1	2	1/21	CHEE2501 Environmental Systems Engineering I: Processes (discontinued)	1/20
	ENVE3150 Environmental System Dynamics and Modelling	2	2	2/21	CIVL3150 Modelling of Environmental Systems (discontinued)	2/20
	ENVE3160 Environmental Phenomena (NEW)	1	2	1/23	Course must be completed	
	ENVE4610 Engineering the Circular Economy (NEW)	1	2	1/23	Course must be completed	
	4 to 8 units from: Environmental Engineering Electives					
	CIVL3420 Sustainable Transport Engineering – Planning and Design	1	2		No substitution	
	CIVL4145 Groundwater Modelling and Management (NEW)	2	2	2/22	CIVL4140 Contaminant Transport Modelling (discontinued)	1/21
	CIVL4525 Sustainable Infrastructure Design (NEW)	2	2	2/23	CIVL4180 Sustainable Built Environment (discontinued)	1/20
	CIVL6111 Ocean, Coastal & Estuarine Engineering (NEW)	2	2	2/23	CIVL4110 Coastal & Estuarine Engineering (discontinued) * approved substitution for CIVL6111 OR CIVL6112 – not both	2/22
	CIVL6112 Hydro- and Marine Power Renewable Energy Systems (NEW)	2	2	2/23	CIVL4110 Coastal & Estuarine Engineering (discontinued) * approved substitution for CIVL6111 OR CIVL6112 – not both	2/22
	CIVL6121 Environmental Hydraulics and Flood Management (NEW)	1	2	1/23	CIVL4120 Advanced Hydraulic Engineering and Structures (discontinued)	2/22
	ENGY4000 Energy Systems	1	2		No substitution	
	ENVM3103 Regulatory Frameworks for Environmental Management & Planning	1	2		No substitution	
	WATR6103 Advanced Wastewater and Biosolids Treatment	2	2		CHEE4012 Industrial Wastewater & Solid Waste Management (discontinued)	
	WATR6105 Integrated Urban Water Management	1	2	1/21	No substitution	
	WATR6106 Emerging Issues in the Urban Water Cycle and Public Water	1	2	1/21	No substitution	
	WATR6108 Advanced Unit Operations in Water Management	1	2	1/21	No substitution	
	WATR6109 Drinking Water Supply: Source, Treatment and Distribution	1	2	1/21	No substitution	

4 units from				
a. Environmental Engineering Breadth Electives; and/or				
b. Chemical Engineering Advanced Electives; and/or				
c. Civil Engineering Advanced Electives.				
Environmental Engineering Breadth Electives				
Complete 0 to 4 units from the following:				
ENVM2100 Foundations of Sustainable Development	2	2	No substitution	
ENVM3201 Catchment Processes & Management	1	2	No substitution	
ERTH1501 Earth Processes and Geological Materials for Engineers	1	2	No substitution	
ERTH2004 Structural Geology	2	2	No substitution	
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ERTH3250 Hydrogeology	2	2	No substitution	
Zimiozoo myarogeology		_		
GEOM1000 Fundamentals of Geographic Information and Technologies	2	2	No substitution	
decimination and recliniologies	2			
CFON2001 Cooperation lufermention Contant	1	2	No substitution	
GEOM2001 Geographical Information Systems	1	2	NO Substitution	
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GEOS1100 Environment & Society	1,2	2	No substitution	
<b>GEOS2100</b> Environmental Systems	1	2	No substitution	
GEOS3102 Global Change: Problems and Prospects	2	2	No substitution	

✓/X compl.	Major in General Civil Engineering (16 units) (discontinued – follow <u>no</u> <u>major option</u> )	Sem offering	#	First offered	Approved substitution	Last offered
	8 units for: General Civil Engineering Compulsory Courses					
	CIVL3420 Sustainable Transport Engineering – Planning and Design	1	2		No substitution	
	CIVL3340 Structural Analysis	1	2		No substitution	
	CIVL3380 Structural and Steel Design (NEW)	1	2	1/23	CIVL2340 Design of Steel Structures (discontinued)	2/22
	CIVL6121 Environmental Hydraulics and Flood Management (NEW)	2	2	2/23	CIVL4120 Advanced Hydraulic Engineering and Structures (discontinued)	2/22
	4 to 8 units: from General Civil Engineering Electives					
	ERTH1501 Earth Processes and Geological Materials for Engineers	1	2		No substitution	
	CIVL3390 Integrated Structural Design	2	2	2/23	CIVL3350 Integrated Structural Design	2/22
	CIVL6111 Ocean, Coastal & Estuarine Engineering (NEW)	2	2	2/23	CIVL4110 Coastal & Estuarine Engineering (discontinued)	2/22
	CIVL4145 Groundwater Modelling and Management (NEW)	2	2	2/22	CIVL4140 Contaminant Transport Modelling (discontinued)	1/21
	CIVL4270 Geotechnical Investigations	1	2		No substitution	
	CIVL4333 Advanced Concrete Design	1	2		No substitution	
	CIVL4334 Design of Timber Structures	2	2		No substitution	
	CIVL4340 Wind Engineering	1	2		No substitution	
	CIVL4450 Traffic Flow Theory and Emerging Technologies	2	2		No substitution	
	CIVL4460 Highway Geometric Design	2	2		CIVL4460 Road Design	
	CIVL4525 Sustainable Infrastructure Design (NEW)	2	2	2/23	CIVL4180 Sustainable Built Environment (discontinued)	1/20
	0 to 4 units from: Civil Engineering Advanced Electives					

√/X compl.	Major in Geotechnical Engineering (16 units)	Sem offering	#	First offered	Approved substitution	Last offered
	8 units for all: Geotechnical Engineering Compulsory Courses					
	CIVL3220 Rock Mechanics (NEW)	2	2	2/23	MINE3121 Mining Geomechanics (discontinued)	1/22
	CIVL4230 Advanced Soil Mechanics	2	2		Course must be completed	
	CIVL4270 Geotechnical Investigations	1	2		Course must be completed	
	CIVL6215 Ground Improvement (NEW)	1	2	1/23	No substitution	
	2 to 8 units from: Geotechnical Engineering Electives					
	CIVL4280 Applied Rock Mechanics	2	2		Course must be completed	
	CIVL6210 Dam Engineering (NEW)	2	2	2/23	No substitution	
	CIVL6220 Tailings Design (NEW)	1	2	1/23	MINE4000 Mine Waste Management & Landform Design (Discontinued)	1/22
	CIVL6250 Underground Structures (NEW)	2	2	2/23	No substitution	
	0 to 4 units from: Geotechnical Engineering Breadth Electives					
	CIVL4340 Wind Engineering	1	2	1/21	No substitution	
	CIVL4460 Highway Geometric Design	2	2		CIVL4460 Road Design	
	CIVL4525 Sustainable Infrastructure Design (NEW)	2	2	2/23	CIVL4180 Sustainable Built Environment (discontinued)	1/20
	CIVL6111 Ocean, Coastal & Estuarine Engineering (NEW)	2	2	2/23	CIVL4110 Coastal & Estuarine Engineering (discontinued)  * CIVL4110 may only be used as approved substitution for CIVL6111 OR CIVL6112  - not both	2/21
	CIVL6112 Hydro- and Marine Power Renewable Energy Systems (NEW)	2	2	2/23	CIVL4110 Coastal & Estuarine Engineering (discontinued)  * approved substitution for CIVL6111 OR CIVL6112 – not both	2/22
	CIVL6121 Environmental Hydraulics and Flood Management (NEW)	2	2	2/23	CIVL4120 Advanced Hydraulic Engineering and Structures (discontinued)	2/22
	ERTH3250 Hydrogeology	2	2		No substitution	
	FIRE3700 Introduction to Fire Safety Engineering	1	2		No substitution	
	0 to 4 units from: Civil Engineering Advanced Electives					

√/X compl.	Major in Mining Engineering (16 units)	Sem offering	#	First offered	Approved substitution	Last offered
	12 units for: Mining Engineering Compulsory Courses					
	MINE3110 Integrated Orebody Knowledge (NEW)	1	2	1/23	MINE3120 Resource Estimation (discontinued)	1/22
	MINE3122 Mining Systems & Automation	1	2		MINE3122 Mining Systems	
	MINE3123 Mine Planning & Sustainability	2	2		MINE3123 Mine Planning	
	MINE3129 Applied Mining Geomechanics (NEW)	1	2	1/23	MINE4120 Mine Geotechnical Engineering (discontinued)	1/22
	MINE4124 Mine Design, Feasibility and Sustainability	2	2		MINE4124 Hard Rock Mine Design & Feasibility	
	MINE4129 Mine Process Optimisation (NEW)	1	2	1/23	MINE3125 Explosives and Blasting Engineering (discontinued)	1/22
	4 units for: Mining Engineering Courses for Civil Engineers only					
	4 units from: Civil Engineering Advanced Electives					

√/X compl.	Major in Structural Engineering (16 units)	Sem offering	#	First offered	Approved substitution	Last offered
	10 units for all: Structural Engineering Compulsory Courses					
	CIVL3340 Structural Analysis	1	2		Course must be completed	
	CIVL3380 Structural and Steel Design (NEW)	1	2	1/23	CIVL2340 Design of Steel Structures (discontinued)	2/23
	CIVL3390 Integrated Structural Design	2	2	2/23	CIVL3350 Integrated Structural Design (discontinued)	2/22
	CIVL4333 Advanced Concrete Design	1	2		Course must be completed	
	CIVL4334 Design of Timber Structures	2	2		Course must be completed	
	4 to 6 units from: Structural Engineering Electives					
	CIVL4230 Advanced Soil Mechanics	2	2	2/21	No substitution	
	CIVL4340 Wind Engineering	1	2	1/21	No substitution	
	CIVL4522 Analytical methods for the Design of Construction Operations	2	2	2/21	No substitution	

CIVL4525 Sustainable Infrastructure Design (NEW)	2	2	2/23	CIVL4180 Sustainable Built Environment (discontinued)	1/20
CIVL6360 Advanced Structural Analysis (NEW)	2	2	2/23	CIVL4332 Advanced Structural Analysis (discontinued)	2/22
FIRE4610 Fire Engineering Design: Solutions for Implicit Safety	1	2		No substitution	
0 to 2 units from: Civil Engineering Advanced Electives					

√/X compl.	Major in Transport Engineering (16 units)	Sem offering	#	First offered	Approved substitution	Last offered
	10 units for all: Transport Engineering Compulsory Courses					
	CIVL3420 Sustainable Transport Engineering – Planning and Design	1	2		Course must be completed	
	CIVL4450 Traffic Flow Theory and Emerging Technologies	2	2	2/21	No substitution	
	CIVL4460 Highway Geometric Design	2	2		CIVL4460 Road Design	
	CIVL6410 Transport Network Modelling (NEW)	1	2	1/23	Course must be completed	
	CIVL6415 Traffic Analysis and Simulation (NEW)	2	2	2/23	Course must be completed	
	4 to 6 units from: Civil Engineering Advanced Electives					

√/X compl.	Major in Water and Marine Engineering (16 units)	Sem offering	#	First offered	Approved substitution	Last offered
	8 units for all: Water and Marine Engineering Compulsory Courses					
	CIVL4340 Wind Engineering	1	2		Course must be completed	
	CIVL6111 Ocean, Coastal & Estuarine Engineering (NEW)	2	2	2/23	CIVL4110 Coastal & Estuarine Engineering (discontinued)	2/21
	CIVL6112 Hydro- and Marine Power Renewable Energy Systems (NEW)	2	2	2/23	Course must be completed	
	CIVL6121 Environmental Hydraulics and Flood Management (NEW)	1	2	1/23	CIVL4120 Advanced Hydraulic Engineering and Structures (discontinued)	2/22
	4-8 units from: Water and Marine Engineering Electives					
	CIVL3420 Sustainable Transport Engineering – Planning and Design	1	2		No substitution	
	CIVL4145 Groundwater Modelling and Management (NEW)	2	2	2/22	CIVL4140 Contaminant Transport Modelling (discontinued)	1/21
	CIVL4525 Sustainable Infrastructure Design (NEW)	2	2	2/23	CIVL4180 Sustainable Built Environment (discontinued)	1/20
	CIVL6210 Dam Engineering (NEW)	2	2	2/23	No substitution	
	ENVE3150 Environmental System Dynamics and Modelling	2	2	2/21	CIVL3150 Modelling of Environmental Systems (discontinued)	2/20
	ENVE3160 Environmental Phenomena (NEW)	1	2	1/23	No substitution	
	ENVM3103 Regulatory Frameworks for Environmental Management & Planning	1	2		No substitution	
	ENVM3115 Climate Change and Environmental Management	1	2		No substitution	
	ENVM3201 Catchment Processes & Management	1	2		No substitution	
	ERTH3250 Hydrogeology	2	2		No substitution	
	WATR6105 Integrated Urban Water Management	1	2	1/21	No substitution	
	0 to 4 units from: Civil Engineering Advanced Electives					

Civil Engineering with Engineering Minor Complete 16 units comprising: 8 units for one of the following minors:

> Data Science Computing Design

and

8 units from Civil Engineering Advanced Electives

√/X compl.	Minor in Computing (8 units)	Sem offering	#	First offered	Approved substitution	Last offered
	4 units for all: Computing Minor Compulsory Courses					
	CSSE2002 Programming in the Large	1,2	2		Course must be completed	
	COMP3506 Algorithms and Data Structures	2	2		Course must be completed	
	4 units from: Computing Electives					
	COMP4702 Machine Learning	1	2		No substitution	
	COSC2500 Numerical Methods in Computational Science	2	2		No substitution	
	COSC3000 Visualization, Computer Graphics & Data Analysis	1	2		No substitution	
	COSC3500 High Performance Computing	2	2		No substitution	
	INFS1200 Introduction to Information Systems	1,2	2		No substitution	
	INFS3208 Cloud Computing	2	2		No substitution	
	MATH3202 Operations Research & Mathematical Planning	1	2		No substitution	

✓/X compl.	Minor in Data Science (8 units)	Sem offering	#	First offered	Approved substitution	Last offered
	4 units for all: Data Science Minor Compulsory Courses					
	DATA2001 Introduction to Data Science (NEW)	2	2	2/22	Course must be completed	
	INFS1200 Introduction to Information Systems	1,2	2		Course must be completed	
	4 units from: Data Science Electives					
	COMP4702 Machine Learning	1	2		No substitution	
	INFS2200 Relational Database Systems	2	2		No substitution	
	INFS3208 Cloud Computing	2	2		No substitution	
	INFS4203 Data Mining	2	2		No substitution	
	STAT2003 Mathematical Probability	1	2		No substitution	
	STAT2004 Statistical Modelling & Analysis	2	2		No substitution	
		<u> </u>	<u> </u>			

Where courses are compulsory in both the specialisation and minor, the compulsory course in the minor must be substituted by courses from Data Science Minor Electives.

√/X compl.	Minor in Design (8 units)	Sem offering	#	First offered	Approved substitution	Last offered
	2 units for all: Design Minor Compulsory Courses					
	<b>DSGN1500</b> Design for a Better World	2	2		Course must be completed	
	6 units from: Design Electives					
	DSGN1100 Design: Interaction	1	2		No substitution	
	DSGN1200 Design: Experience	2	2		No substitution	
	DSGN2100 Design: Organisation	1	2		No substitution	
	DSGN2200 Design: Environment	2	2		No substitution	
	DSGN3100 Design: Infrastructure	1	2		No substitution	