

# FACULTY OF SCIENCE, ENGINEERING AND BUILT ENVIRONMENT

## 2016 COURSE ENROLMENT MAP

Natural History (Burwood)		CP	Campus	Period	Prerequisite
SLE136	Life on an Evolving Planet	1	B	T2	Nil
SLE204	Animal Diversity	1	B, G	T1	SLE111 or SLE132
SLE203	Plant Biology	1	B	T1	One of SLE103, SLE111, SLE132 or SLE151
SLE237	Biogeography (T3)	1	B	T3	One of SLE102, SLE103, SLE111, SLE115, SLE132, SLE136 or SLE151
SLE370	Evolution	1	B, X	T1	One of SLE204, SLE205, SLE254 plus one other level 2 SLE-coded unit.
SLE395	Palaeobiology	1	B, X	T1	One of SLE102, SLE136, SLE103 or plus two level 2 units.
Plant Biology (Burwood)		CP	Campus	Period	Prerequisite
SLE132	Biology: Form and Function	1	B, G, W	T2	Nil
SLE203	Plant Biology	1	B	T1	One of SLE103, SLE111, SLE132 or SLE151
SLE237	Biogeography (T3)	1	B	T3	One of SLE102, SLE103, SLE111, SLE115, SLE132, SLE136 or SLE151
SLE310	Pest Plants and Animals	1	B	T1	Two level 2 SLE-coded units.
SLE317	Australian Vegetation and Its Management	1	B	T2	Two level 2 SLE-coded units.
SLE370	Evolution	1	B, X	T1	One of SLE204, SLE205, SLE254 plus one other level 2 SLE-coded unit.
Fisheries and Aquaculture (Warrnambool)		CP	Campus	Period	Prerequisite
SLE134	Recreational Fisheries Science	1	W	T3	Nil
SLE262	Aquaculture and the Environment (from 2017)	1	W	T1	TBA
SLE261	Diversity of Fishes	1	W	T2	One of SLE111, SLE132, SLE103 or SLE144
SLE217	Aquaculture Nutrition and Seafood Quality	1	W	T2	SLE111 or SLE161
SLE329	Aquatic Animal Health and Reproduction	1	W	T2	Any two level 2 SLE-coded units
SLE343	Fisheries Management	1	W	T2	SLE261
Freshwater Biology (Warrnambool)		CP	Campus	Period	Prerequisite
SLE263	Marine and Coastal Ecosystems	1	W, G	T1	One of SLE103, SLE144 or SLE132
SLE244	Aquatic Ecology	1	W	T2	SLE103 or SLE144
SLE223	Water Quality and Ecological Health	1	W	T2	One of SLE103, SLE150 or SLE252
SLE348	Freshwater Biology	1	W	T1	SLE144 or SLE103
SEV322	Hydraulics and Hydrology	1	G, X	T1	SEM218
SLE304	Geographic Information Systems: Uses in Aquatic Environments	1	W	T1	Any two level 2 science course-grouped units.

**Course:** S320 Bachelor of Science

**Campus:** Burwood (Melbourne), Waurn Ponds (Geelong), Warrnambool

**Major Sequences:** Animal Biology – Burwood, Geelong (MJ-S000064)

Cell Biology – Burwood, Geelong (MJ-S000065)

Chemistry – Geelong (MJ-S000009)

Chemistry and Materials Science – Burwood (MJ-S000066)

Environmental Science – Burwood (MJ-S000011)

Human Biology – Burwood, Geelong (MJ-S000068)

Mathematical Modelling – Burwood, Geelong, cloud (online) (MJ-S000007)

Natural History – Burwood (MJ-S000069)

Plant Biology – Burwood (MJ-S000070)

Freshwater Biology – Warrnambool\* (MJ-S000067)

Fisheries and Aquaculture\* (MJ-S000072)

\* **Warrnambool campus:** The major sequences in **Fisheries and Aquaculture** and **Freshwater Biology** are only available at the Warrnambool Campus. Warrnambool students may also complete the **Mathematical Modelling** major which is offered cloud (online). Students who wish to complete the freshwater biology or fisheries and aquaculture major may commence their study at Melbourne Burwood Campus or Geelong Waurn Ponds Campus and then relocate to the Warrnambool Campus to complete the requirements of these majors.

**Students must complete at least one major sequence.**

### Major Sequences

Animal Biology (Burwood, Geelong)		CP	Campus	Period	Prerequisite
SLE132	Biology: Form and Function	1	B, G, W	T2	Nil
SLE204	Animal Diversity	1	B, G	T1	SLE111 or SLE132
SLE205	Vertebrate Structure and Function	1	B, G	T2	SLE132
SLE315	Comparative Animal Physiology	1	X	T2	One of SLE204, SLE211, SLE219, SLE232, SLE221, SLE255 or SLE265
SLE350	Marine Wildlife (T3)	1	B, G, W	T3	Two level 2 SLE-coded units. Please note that entry to this unit is via application and requires approval of the Unit Chair.
SLE370 or SLE372	Evolution or Evolutionary Ecology	1 1	B, X G	T1 T1	One of SLE204, SLE205, SLE254 plus one other level 2 SLE-coded unit. SLE103 and SLE204, and one of SLE111 or SLE254, plus any two level 2 or level 3 SLE-coded units.

This course map is for illustrative purposes. Students must meet the course rules and unit requirements as set out in the Handbook [deakin.edu.au/students/university-handbook/2016](http://deakin.edu.au/students/university-handbook/2016).

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Cell Biology (Burwood, Geelong)		CP	Campus	Period	Prerequisite
<b>Note:</b> students undertaking this major sequence must have completed SLE155 Chemistry for the Professional Sciences (prereq to SLE212)					
SLE212	Biochemistry	1	B, G	T1	SLE152 or SLE155
SLE254	Genetics	1	B, G, W	T2	SLE111 or SLE144
SLE206	Cell Biology	1	B (T2) G (T3)	T2, T3	SLE111
SLE222	Biochemical Metabolism	1	B, G	T2	SLE152 or SLE155
SLE346	Molecular Basis of Disease	1	B, G	T2	SLE212 and one of SLE206, SLE211, SLE222 or SLE214
SLE340 <b>or</b> SLE321	Genomes and Bioinformatics <b>or</b> Molecular Biology Techniques	1 1	G B	T1 T1	SLE254 One of SLE206, SLE221, SLE234 or SLE254
Chemistry (Geelong)		CP	Campus	Period	Prerequisite
<b>Note:</b> students undertaking this major sequence must have completed SLE155 Chemistry for the Professional Sciences (prereq to SLE210)					
SLE210	Chemistry the Enabling Science	1	B, G	T1	SLE152 or SLE155
SLE214	Organic Chemistry	1	B, G	T2	SLE152 or SLE155
SLE213	Introduction to Spectroscopic Principles	1	G	T1	SLE152 or SLE155
SLE229	Introduction to Separation Science	1	G	T2	SLE152 or SLE155
SLE316	Analytical Chemistry	1	G	T1	SLE213 and SLE229
SLE318	Synthetic and Medicinal Chemistry	1	G	T1	SLE214 and at least four other level 2 units.
Chemistry and Materials Science (Burwood)		CP	Campus	Period	Prerequisite
<b>Note:</b> students undertaking this major sequence must have completed SLE155 Chemistry for the Professional Sciences (prereq to SLE210)					
SLE210	Chemistry the Enabling Science	1	B, G	T1	SLE152 or SLE155
SLE214	Organic Chemistry	1	B, G	T2	SLE152 or SLE155
SLE235	Chemical Systems (T3)	1	B	T3	SLE152 or SLE155
SLE212	Biochemistry	1	B, G	T1	SLE152 or SLE155
SLE330	Materials Chemistry	1	B	T1	One of SLE210, SLE214, SLE235
SLE338	Electrochemistry for a Sustainable Future	1	B	T2	One of SLE210, SLE214, SLE235

Environmental Science (Burwood)		CP	Campus	Period	Prerequisite
SLE102	Physical Geography	1	B, G	T2	Nil
SLE239	Introduction to Geographic Information Systems	1	X	T2	Nil
SLE231	Hydrology and Water Resources Management	1	B	T1	One of SLE101, SLE102 or SLE239
SLE202	Landscape Evolution	1	B	T1	SLE102
SHD301	Creating Sustainable Futures	1	B W	T2 T3	Must have completed six credit point units at Level 2 or higher.
SLE322	Landscape Ecology	1	B	T1	Two level 2 SLE-coded units.
Human Biology (Burwood, Geelong)		CP	Campus	Period	Prerequisite
SLE132	Biology: Form and Function	1	B, G, W	T2	Nil
SLE254	Genetics	1	B, G, W	T2	SLE111 or SLE144
SLE211	Principles of Physiology	1	B, G	T1	One of SLE111, HBS109 or SLE132
SLE221	Systems Physiology	1	B, G	T2	One of SLE111, HBS109, SLE132
SLE323	Advanced Topics in Biomedical Science	1	B, G	T1	Any two of SLE221, SLE222, SLE254 or SLE234
SLE339 <b>or</b> SLE340	Human Genetics <b>or</b> Genomes and Bioinformatics	1 1	B G	T2 T1	SLE254 SLE254
Mathematical Modelling (Burwood, Geelong, cloud (online))		CP	Campus	Period	Prerequisite
SIT194	Introduction to Mathematical Modelling	1	B, G, X	T2	Nil
SIT192	Discrete Mathematics	1	B, G, X B, X	T1 T2	Nil
SIT291	Mathematical Methods for Information Modelling	1	B, X	T1	SIT194
SIT292	Linear Algebra for Data Analysis	1	B, X	T2	SIT192
SIT396	Complex Analysis	1	B, G, X	T2	Two units chosen from SIT291, SIT292, SIT294
SIT399	Computational Decision Analysis	1	B, X	T1	One of SIT291, SIT292, SIT281, SIT294