



## Bachelor of Engineering (Honours)/Bachelor of Environmental Science (Domestic students)

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|--|---|--|
| <b>Program code</b><br>1555<br><b>Available at</b><br>Nathan Campus<br><b>Duration</b><br>5 years full-time<br>10 years part-time<br><b>Credit points</b><br>400<br><b>Indicative fee</b><br>\$8,000.00* per year <a href="#">(more)</a><br>* 2022 indicative annual CSP fee | <b>Entry requirements</b><br>72.00<br>ATAR/RANK 2022<br><a href="#">(more)</a><br><b>Commencing in</b><br>Trimester 1 and Trimester 2 | <b>Prerequisites</b><br>Any General or Applied English subject (Units 3&4, C)<br><b>Assumed knowledge</b><br>Mathematical Methods (Units 3&4, C) |
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### Degree requirements: Students who started Trimester 1 - 2022

**For Domestic and those International students not required to complete the English Language Enhancement course**

For the award of *Bachelor of Engineering (Honours)/Bachelor of Environmental Science [BEng(Hons)/BEnvSc]*, you must successfully complete 400 credit points, made up of the core courses AND

- 20 credit points of foundation courses for your chosen Engineering major;
- 10 credit points of foundation courses for your chosen Environmental Science major;
- 160 credit points for an Engineering major;
- 60 credit points for an Environmental Science major;
- 30 credit points of listed electives.

### Other program requirements

You must successfully complete:

- no more than 150 credit points of Level 1 courses (the first digit of a course code denotes the level);
- at least 60 credit points of Level 3 courses or higher.

You must also complete a minimum of 12 weeks (60 days) of approved experience in an Engineering practice environment (or a satisfactory alternative) during your degree studies.

### Honours

#### Classification of Honours - Bachelor of Engineering (Honours)

The class of Honours to be awarded to each student in this degree will be determined by the School Assessment Board on the basis of the Program Grade Point Average for the engineering components of the program and the performance in the final year IAP course.

A minimum IAP mark of 50% is required for the award of the Bachelor of Engineering (Honours).

Students who have repeated the IAP course will be eligible for no higher than Class III Honours. A second fail in the IAP course will result in termination of the student's enrolment in the program.

#### Cut-offs for Honours Classifications

- **Class I Honours:**
  - Program Grade Point Average - 6.200 (minimum)
  - Minimum IAP Mark - 80%
- **Class IIA Honours:**

- Program Grade Point Average - 5.650 (minimum)
- Minimum IAP Mark - 70%
- **Class IIB Honours:**
  - Program Grade Point Average - 5.000 (minimum)
  - Minimum IAP Mark - 60%
- **Class III Honours:**
  - Program Grade Point Average - < 5.000
  - Minimum IAP Mark - 50%

### Australian Qualifications Framework (AQF) Level and Type

The **Australian Qualifications Framework (AQF)** is the national policy for regulated qualifications in Australian education and training. The Bachelor of Engineering (Honours) is accredited as an AQF Level 8 - Bachelor Honours Degree. The Bachelor of Environmental Science is accredited as an AQF Level 7 - Bachelor Degree.

### English Language Enhancement

Domestic students enrolled in this program whose first language is not English may complete the following **English Language Enhancement (ELE)** course as an elective.

- **5903LHS Language and Communication for Sciences**

**Students whose first language is English are not permitted to undertake this ELE course.**

### Program learning outcomes

#### Program learning outcomes

**Program Learning Outcomes** communicate to the community the value of the Griffith educational experience as benchmarked against national qualification standards.

Program Learning Outcomes for the **Bachelor of Engineering (Honours)** and **Bachelor of Environmental Science** describe the knowledge, skills and the application of knowledge and skills you will acquire through studying the Griffith program of your choice.

### Course list: Students starting Trimester 1 - 2022

**Course offering information in program structures is a guide only. Please check the actual offering information in the Course Catalogue.**

**Note: Students must check the prerequisite and incompatible requirements before selecting any course within this program.**

#### English Language Enhancement course

Students required to undertake the English Language Enhancement course must complete 5903LHS in their first trimester of study.

Students that complete 5903LHS will only be required to complete 20 credit points of Listed electives.

| Trimester | Course code    | Requirement         | Course title   | CP |
|-----------|----------------|---------------------|--|----|
| Tri 1     | <b>5903LHS</b> | English Enhancement | Language and Communication for Sciences (see Note 1) | 10 |
|           |                |                     | <b>OR</b>  |    |
| Tri 1     |                | Listed Elective 3   | Listed elective (see Note 1)                         | 10 |

Note 1: This advice is only for students required to complete the English Language Enhancement course.

#### Year 1

You must complete the following courses:

| Trimester | Course code | Requirement          | Course title                | CP |
|-----------|-------------|----------------------|-----------------------------|----|
| Tri 1     | 1010ENG     | Hons Core to Program | Engineering Mathematics 1   | 10 |
| Tri 1     | 1018ENG     | Hons Core to Program | Engineering Science         | 10 |
| Tri 1     | 1017ENG     | Hons Core to Program | Engineering Materials       | 10 |
| Tri 1     | 1701ENG     | Hons Core to Program | Creative Engineering        | 10 |
| Tri 2     | 1020ENG     | Hons Core to Program | Engineering Mathematics 2   | 10 |
| Tri 2     | 1022ENG     | Hons Core to Program | Engineering Design Practice | 10 |

You must complete 20 credit points of **foundation courses for your chosen Engineering major**:

| Trimester | Course code | Requirement          | Course title  | CP |
|-----------|-------------|----------------------|---|----|
| Tri 2     | 1105ENG     | Hons Listed Elective | Numerical and Computing Skills (for Civil or Environmental Engineering majors)    | 10 |
| Tri 2     | 1501ENG     | Hons Listed Elective | Engineering Mechanics (for Civil, Environmental or Mechanical Engineering majors) | 10 |
| Tri 2     | 1305ENG     | Hons Listed Elective | Engineering Programming (for Electronic or Mechanical Engineering majors)         | 10 |
| Tri 2,3   | 1301ENG     | Hons Listed Elective | Electric Circuits (for Electronic Engineering majors)                             | 10 |

### Years 2-5

You must complete 10 credit points of **foundation courses for your chosen Environmental Science major**:

| Trimester | Course code | Requirement       | Course title   | CP |
|-----------|-------------|-------------------|--|----|
| Tri 2     | 1444ENV     | Listed Elective 2 | Global Environmental Challenges (for Environmental Management major) (not offered from 2021) | 10 |
|           |             |                   | <b>OR</b>  |    |
| Tri 2     | 1024ENG     | Listed Elective 2 | Intro to Digital and Spatial Analysis  | 10 |
| Tri 2     | 1042SCG     | Listed Elective 2 | Genetics and Evolutionary Biology (for Ecology & Conservation major)                         | 10 |
| Tri 2     | 1022SCG     | Listed Elective 2 | Chemistry 1B (Nathan) (for Soil & Water Science Major) (see Note 1)                          | 10 |
|           |             |                   | <b>OR</b>  |    |
| Tri 2     | 1024SCG     | Listed Elective 2 | Chemistry II (Gold Coast) (for Soil & Water Science Major) (see Note 1)                      | 10 |
| Tri 1     | 1037ENV     | Listed Elective 2 | Understanding Australian Cities (for Urban Environments major)                               | 10 |

Note 1: Soil and Water major is only suitable for students who have completed chemistry to Year 12 level at Secondary School.

You must complete the following courses:

| Trimester | Course code | Requirement          | Course title   | CP  |
|-----------|-------------|----------------------|--|-----|
| Tri 1     | 2205NSC     | Core to Program      | Calculus II  | 10  |
| Tri 1     | 1021SCG     | Listed Elective 3    | Chemistry 1A (Nathan) (see Note 1)                   | 10  |
|           |             |                      | <b>OR</b>  |     |
| Tri 1,3   | 1023SCG     | Listed Elective 3    | Chemistry I (Gold Coast) (see Note 1)                | 10  |
|           |             |                      | <b>OR</b>  |     |
| Tri 1     |             |                      | Listed Elective (see Note 1)                         | 10  |
| Tri 1,3   | 1041SCG     | Core to Program      | Biological Systems                                   | 10  |
| Tri 1     | 1043SCG     | Core to Program      | Introduction to Environmental Sustainability         | 10  |
| Tri 2     | 1044SCG     | Core to Program      | Earth Systems  | 10  |
| Tri 1,2   |             |                      | Engineering major                                    | 160 |
| Tri 1,2   |             |                      | Environmental Science Major                          | 60  |
| Tri 1,2   |             |                      | Listed Elective                                      | 20  |
| Tri 2     | 3004ENG     | Hons Core to Program | Project Management Principles                        | 10  |
| Tri 1,2   | 4000ENG     | Hons Core to Program | Research Methods and Statistics (Tri 1 GC; Tri 2 NA) | 10  |

Note 1: Students completing the **Environmental Engineering major** must complete a Listed first year Environmental Science elective.

## Bachelor of Engineering (Honours) - Majors (4 available)

### Civil Engineering

You must complete the following foundation courses:

| Trimester | Course code | Requirement      | Course title                   | CP |
|-----------|-------------|------------------|--------------------------------|----|
| Tri 2     | 1105ENG     | Mandatory Prereq | Numerical and Computing Skills | 10 |
| Tri 2     | 1501ENG     | Mandatory Prereq | Engineering Mechanics          | 10 |

### Year 2

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title                       | CP |
|-----------|-------------|--------------------|------------------------------------|----|
| Tri 1     | 2002ENG     | Hons Core to Major | Fluid Mechanics and Hydraulics     | 10 |
| Tri 1     | 2101ENG     | Hons Core to Major | Mechanics of Materials I           | 10 |
| Tri 1     | 2104ENG     | Hons Core to Major | Construction Methods and Practices | 10 |
| Tri 2     | 2004ENG     | Hons Core to Major | Hydrology                          | 10 |

### Year 3

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title                     | CP |
|-----------|-------------|--------------------|----------------------------------|----|
| Tri 2     | 2102ENG     | Hons Core to Major | Soil Mechanics                   | 10 |
| Tri 2     | 2103ENG     | Hons Core to Major | Structural Design                | 10 |
| Tri 2     | 3113ENG     | Hons Core to Major | Civil Engineering Design Project | 10 |

### Year 4

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title             | CP |
|-----------|-------------|--------------------|--------------------------|----|
| Tri 1     | 3101ENG     | Hons Core to Major | Structural Analysis      | 10 |
| Tri 2     | 3103ENG     | Hons Core to Major | Concrete Structures      | 10 |
| Tri 1     | 3102ENG     | Hons Core to Major | Geotechnical Engineering | 10 |

## Year 5

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title                   | CP |
|-----------|-------------|--------------------|--------------------------------|----|
| Tri 1     | 6002ENG     | Hons Core to Major | IAP (see Note 1)               | 40 |
| Tri 2     | 6106ENG     | Hons Core to Major | Transportation Engineering     | 10 |
| Tri 2     | 6209ENG     | Hons Core to Major | System Design Project (Nathan) | 10 |

Note 1: It is a requirement that students complete a minimum of 60 days approved experience in an engineering practice environment (or a satisfactory alternative) during their degree studies. A co-requisite of this course is the completion of a minimum of 12 weeks (60 days) of approved experience in an engineering practice environment (or a satisfactory alternative).

## Electronic Engineering

You must complete the following foundation courses:

| Trimester | Course code | Requirement      | Course title            | CP |
|-----------|-------------|------------------|-------------------------|----|
| Tri 2     | 1305ENG     | Mandatory Prereq | Engineering Programming | 10 |
| Tri 2,3   | 1301ENG     | Mandatory Prereq | Electric Circuits       | 10 |

## Year 2

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title                     | CP |
|-----------|-------------|--------------------|----------------------------------|----|
| Tri 1     | 2319ENG     | Hons Core to Major | Introduction to Electronics      | 10 |
| Tri 1     | 2315ENG     | Hons Core to Major | Digital Electronics              | 10 |
| Tri 1     | 2305ENG     | Hons Core to Major | Signals and Systems              | 10 |
| Tri 2     | 2323ENG     | Hons Core to Major | Data and Computer Communications | 10 |

## Year 3

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title                                   | CP |
|-----------|-------------|--------------------|--|----|
| Tri 2     | 2301ENG     | Hons Core to Major | Semiconductor Devices and Circuits             | 10 |
| Tri 2     | 3303ENG     | Hons Core to Major | Digital Signal Processing                      | 10 |
| Tri 2     | 2303ENG     | Hons Core to Major | Microprocessor Techniques                      | 10 |
|           |             |                    | <b>OR</b>                                      |    |
| Tri 2     | 3323ENG     | Hons Core to Major | Microcontroller Techniques                     | 10 |
| Tri 2     | 2307ENG     | Hons Core to Major | Electromagnetic Fields and Propagating Systems | 10 |

## Year 4

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title                       | CP |
|-----------|-------------|--------------------|------------------------------------|----|
| Tri 1     | 3304ENG     | Hons Core to Major | Control Systems                    | 10 |
| Tri 1     | 3301ENG     | Hons Core to Major | Practical Electronics              | 10 |
| Tri 1     | 3302ENG     | Hons Core to Major | Computer Systems                   | 10 |
| Tri 2     | 3324ENG     | Hons Core to Major | Communication Systems and Circuits | 10 |

### Year 5

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title                     | CP |
|-----------|-------------|--------------------|----------------------------------|----|
| Tri 1     | 6002ENG     | Hons Core to Major | IAP (see Note 1)                 | 40 |
| Tri 2     | 2323ENG     | Hons Core to Major | Data and Computer Communications | 10 |

Note 1: It is a requirement that students complete a minimum of 60 days approved experience in an engineering practice environment (or a satisfactory alternative) during their degree studies. A co-requisite of this course is the completion of a minimum of 12 weeks (60 days) of approved experience in an engineering practice environment (or a satisfactory alternative).

### Environmental Engineering

You must complete the following foundation courses:

| Trimester | Course code | Requirement      | Course title                   | CP |
|-----------|-------------|------------------|--------------------------------|----|
| Tri 2     | 1105ENG     | Mandatory Prereq | Numerical and Computing Skills | 10 |
| Tri 2     | 1501ENG     | Mandatory Prereq | Engineering Mechanics          | 10 |

### Year 2

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title                           | CP |
|-----------|-------------|--------------------|--|----|
| Tri 1     | 1021SCG     | Hons Core to Major | Chemistry 1A                           | 10 |
| Tri 1     | 2002ENG     | Hons Core to Major | Fluid Mechanics and Hydraulics         | 10 |
| Tri 1     | 2202ENG     | Hons Core to Major | Environmental Microbiology and Ecology | 10 |
| Tri 1     | 2004ENG     | Hons Core to Major | Hydrology                              | 10 |

### Year 3

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title                       | CP |
|-----------|-------------|--------------------|------------------------------------|----|
| Tri 2     | 2102ENG     | Hons Core to Major | Soil Mechanics                     | 10 |
| Tri 2     | 2201ENG     | Hons Core to Major | Engineering Thermodynamics         | 10 |
| Tri 2     | 4007ENG     | Hons Core to Major | Heat and Mass Transfer Engineering | 10 |

### Year 4

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title                                | CP |
|-----------|-------------|--------------------|---|----|
| Tri 1     | 3201ENG     | Hons Core to Major | Water and Wastewater Treatment Fundamentals | 10 |
| Tri 1     | 3202ENG     | Hons Core to Major | Solid Waste Engineering                     | 10 |
| Tri 2     | 3113ENG     | Hons Core to Major | Civil Engineering Design Project            | 10 |

### Year 5

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title                       | CP |
|-----------|-------------|--------------------|------------------------------------|----|
| Tri 1     | 6002ENG     | Hons Core to Major | IAP (see Note 1)                   | 40 |
| Tri 2     | 6209ENG     | Hons Core to Major | System Design Project              | 10 |
| Tri 2     | 6205ENG     | Hons Core to Major | Hydrologic and Hydraulic Modelling | 10 |

Note 1: It is a requirement that students complete a minimum of 60 days approved experience in an engineering practice environment (or a satisfactory alternative) during their degree studies. A co-requisite of this course is the completion of a minimum of 12 weeks (60 days) of approved experience in an engineering practice environment (or a satisfactory alternative).

## Mechanical Engineering

You must complete the following foundation courses:

| Trimester | Course code | Requirement      | Course title            | CP |
|-----------|-------------|------------------|-------------------------|----|
| Tri 2     | 1305ENG     | Mandatory Prereq | Engineering Programming | 10 |
| Tri 2     | 1501ENG     | Mandatory Prereq | Engineering Mechanics   | 10 |

### Year 2

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title                  | CP |
|-----------|-------------|--------------------|-------------------------------|----|
| Tri 1     | 2517ENG     | Hons Core to Major | Kinematics and Dynamics       | 10 |
| Tri 1     | 2101ENG     | Hons Core to Major | Mechanics of Materials I      | 10 |
| Tri 1     | 2502ENG     | Hons Core to Major | Mechanical Engineering Design | 10 |

### Year 3

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title                       | CP |
|-----------|-------------|--------------------|------------------------------------|----|
| Tri 1     | 2002ENG     | Hons Core to Major | Fluid Mechanics and Hydraulics     | 10 |
| Tri 1     | 3304ENG     | Hons Core to Major | Control Systems                    | 10 |
| Tri 2     | 2105ENG     | Hons Core to Major | Mechanics of Materials 2           | 10 |
| Tri 2     | 2501ENG     | Hons Core to Major | Manufacturing Technology           | 10 |
| Tri 2     | 2201ENG     | Hons Core to Major | Engineering Thermodynamics         | 10 |
| Tri 2     | 4007ENG     | Hons Core to Major | Heat and Mass Transfer Engineering | 10 |

### Year 4

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title                | CP |
|-----------|-------------|--------------------|-----------------------------|----|
| Tri 2     | 3508ENG     | Hons Core to Major | Materials and Manufacturing | 10 |
| Tri 2     | 3511ENG     | Hons Core to Major | Design of Machine Elements  | 10 |
| Tri 2     | 2318ENG     | Hons Core to Major | Electromechanics            | 10 |

### Year 5

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title     | CP |
|-----------|-------------|--------------------|------------------|----|
| Tri 1     | 6002ENG     | Hons Core to Major | IAP (see Note 1) | 40 |

Note 1: It is a requirement that students complete a minimum of 60 days approved experience in an engineering practice environment (or a satisfactory alternative) during their degree studies. A co-requisite of this course is the completion of a minimum of 12 weeks (60 days) of approved experience in an engineering practice environment (or a satisfactory alternative).

## Bachelor of Environmental Science - Majors (4 available)

### Ecology and Conservation

You must complete the following courses:

| Trimester | Course code | Requirement   | Course title                                 | CP |
|-----------|-------------|---------------|--|----|
| Tri 1     | 2291ENV     | Core to Major | Applied Data Science                         | 10 |
| Tri 1     | 2261ENV     | Core to Major | Plant Diversity (not offered from 2021)      | 10 |
|           |             |               | <b>OR</b>                                    |    |
| Tri 2     | 2702ENV     | Core to Major | Botany                                       | 10 |
| Tri 2     | 2051ENV     | Core to Major | Ecology                                      | 10 |
| Tri 2     | 2251ENV     | Core to Major | Animal Diversity (not offered from 2021)     | 10 |
|           |             |               | <b>OR</b>                                    |    |
| Tri 1     | 2303ENV     | Core to Major | Zoology                                      | 10 |
| Tri 1     | 3241ENV     | Core to Major | Quantitative Ecology (not offered from 2021) | 10 |
|           |             |               | <b>OR</b>                                    |    |
| Tri 1     | 3606ENV     | Core to Major | Conservation Biology                         | 10 |
| Tri 2     | 3308ENV     | Core to Major | Emerging Topics in Conservation              | 10 |
|           |             |               | <b>OR</b>                                    |    |
| Tri 2     | 3306ENV     | Core to Major | Environmental Management                     | 10 |

### Environmental Management

You must complete the following courses:

| Trimester | Course code | Requirement   | Course title  | CP |
|-----------|-------------|---------------|---|----|
| Tri 1     | 2416ENV     | Core to Major | Environmental Anthropology  | 10 |
| Tri 1     | 2107ENV     | Core to Major | Introduction to Geographic Information Systems                      | 10 |
| Tri 2     | 2221ENV     | Core to Major | Environmental Politics and Policy (not offered in 2021)             | 10 |
|           |             |               | <b>OR</b>   |    |
| Tri 1,3   | 2004GIR     | Core to Major | The Government Business Nexus: Intervening, Lobbying and Responding | 10 |
|           |             |               | <b>OR</b>   |    |
| Tri 2     | 2313AFE     | Core to Major | Environmental and Energy Economics (Online)                         | 10 |
| Tri 2     | 2281ENV     | Core to Major | Economics and the Environment                                       | 10 |
| Tri 1     | 3307ENV     | Core to Major | Environmental and Social Futures (not offered in 2021)              | 10 |
|           |             |               | <b>OR</b>   |    |
| Tri 1,3   | 4118ENV     | Core to Major | Policymaking and Planning for Climate Change                        | 10 |
| Tri 2     | 3306ENV     | Core to Major | Environmental Management  | 10 |

### Soil and Water Science

You must complete the following courses:



| Trimester | Course code | Requirement   | Course title                              | CP |
|-----------|-------------|---------------|---|----|
| Tri 1     | 2291ENV     | Core to Major | Applied Data Science                      | 10 |
| Tri 1     | 2071ENV     | Core to Major | Soils and Geomorphology                   | 10 |
| Tri 2     | 2209ENV     | Core to Major | Environmental Chemistry                   | 10 |
| Tri 2     | 2304ENV     | Core to Major | Rivers and Catchments                     | 10 |
| Tri 1     | 3431ENV     | Core to Major | Water Pollution Chemistry                 | 10 |
| Tri 2     | 3441ENV     | Core to Major | Land Degradation and Catchment Management | 10 |

## Urban Environments

You must complete the following courses:

| Trimester | Course code | Requirement   | Course title                                   | CP |
|-----------|-------------|---------------|--|----|
| Tri 1     | 2107ENV     | Core to Major | Introduction to Geographic Information Systems | 10 |
| Tri 1     | 2315ENV     | Core to Major | Urban Ecology and Biodiversity                 | 10 |
| Tri 2     | 2414ENV     | Core to Major | Urban Environmental Systems                    | 10 |
| Tri 2,3   | 2212ENV     | Core to Major | Ecotox and Impact Assessment                   | 10 |
|           |             |               | <b>OR</b>                                      |    |
| Tri 2     | 2304ENV     | Core to Major | Rivers and Catchments                          | 10 |
| Tri 1,3   | 4118ENV     | Core to Major | Policymaking and Planning for Climate Change   | 10 |
| Tri 2     | 3418ENV     | Core to Major | Spatial Modelling (not offered from 2021)      | 10 |
|           |             |               | <b>OR</b>                                      |    |
| Tri 2     | 3033ESC     | Core to Major | Environmental Data Analytics                   | 10 |

## Electives (1 available)

### Listed electives

| Trimester | Course code | Requirement       | Course title  | CP |
|-----------|-------------|-------------------|---|----|
| Tri 2     | 1042SCG     | Listed Elective 3 | Genetics and Evolutionary Biology                       | 10 |
| Tri 2     | 1044SCG     | Listed Elective 3 | Earth Systems   | 10 |
| Tri 2     | 1444ENV     | Listed Elective 3 | Global Environmental Challenges (not offered from 2021) | 10 |
|           |             |                   | <b>OR</b>   |    |
| Tri 2     | 1024ENG     | Listed Elective 3 | Intro to Digital and Spatial Analysis                   | 10 |
| Tri 1     | 1037ENV     | Listed Elective 3 | Understanding Australian Cities                         | 10 |
| Tri 2     | 1022SCG     | Listed Elective 3 | Chemistry 1B  | 10 |
|           |             |                   | <b>OR</b>   |    |
| Tri 2     | 1024SCG     | Listed Elective 3 | Chemistry II  | 10 |
| Tri 1,2,3 | 3900ESC     | Listed Elective 3 | Work Integrated Learning Placement                      | 20 |
| Tri 1,2,3 | 3911ESC     | Listed Elective 3 | Work Integrated Learning Special Topic                  | 10 |