

# Bachelor of Environmental Science & Management

## TRANSITION ARRANGEMENTS - INFORMATION FOR STUDENTS WHO COMMENCED IN THE PROGRAM PRIOR TO 2020

Changes have been made to the Bachelor of Environmental Science & Management program from 2020 onwards. Information including the changes to the overall structure of the program, and changes for each major, can be found in the following pages.

### **Frequently Asked Questions**

#### ***Does this change what I need to enrol in?***

No, as you started the program prior to 2020 you can continue to complete the pre-2020 program structure. This does not change what you need to enrol in to graduate.

#### ***Can I choose to follow the updated program and enrol in the new courses?***

This will depend on what courses you have completed so far. You can use the 2020 Program Plan to map your completed courses against the new structure then mail your Program Advisor at [ProgramAdvice@newcastle.edu.au](mailto:ProgramAdvice@newcastle.edu.au) if you need further advice.

#### ***Will this delay my graduation?***

No. As the changes do not affect what you need to enrol in to graduate, these changes will not delay your graduation.

#### ***I am currently completing the Marine Science major and I noticed there is a new [B Coastal & Marine Science Program](#) offered in 2020. Can I transfer to the new B Coastal & Marine Science Program?***

Continuing students can request to transfer. The amount of credit you will receive will depend on how many courses you have already completed in the B Environmental Science & Management program. If you would like to transfer please email [programadvice@newcastle.edu.au](mailto:programadvice@newcastle.edu.au) for advice before submitting your [Internal Transfer Application](#).

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From 2020, the **Program Structure** has changed as follows:

| Pre-2020 Bachelor of Environmental Science & Management Program Structure |             | 2020 Bachelor of Environmental Science & Management Program Structure   |           | Details of Change   |
|---|-------------|---|-----------|---|
| <b>Core Courses</b>   | 100 units   | <b>Core Courses</b>   | 100 units | Removal of PHYS2300 from Core Course List, addition of ENVS1002 to Core Course list.  |
| <b>Directed Course:<br/>10 unit MATH/PHYS</b>                             | 10 unit     | <b>Directed Courses:<br/>10 unit MATH course<br/>plus<br/>10 unit Program<br/>Directed ENVS3008 or<br/>GEOS3250</b> | 20 units  | Addition of a 10 unit program directed course. Students will choose ENVS3008 or GEOS3250.   |
| <b>Major</b>  | 80-90 units | <b>Major</b>  | 80 units  | All majors in the new program are 80 units only. There have been changes to compulsory and directed courses within each major, see pages 5 to 7. Two of the Majors have changed name as indicated in the table at the bottom of page 4. |
| <b>Electives</b>  | 50-40 units | <b>Electives</b>  | 40 units  |   |
| <b>Total 240 units</b>  |             | <b>Total 240 units</b>  |           |   |

Information correct as of September 2019 and subject to change.

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## TRANSITION ARRANGEMENTS - INFORMATION FOR STUDENTS WHO COMMENCED IN THE PROGRAM PRIOR TO 2020

From 2020, the **Core Courses** have changed as follows:

| Pre-2020 Bachelor of Environmental Science & Management Program Structure – Core Courses | 2020 Bachelor of Environmental Science & Management Program Structure – Core Courses | Equivalencies   |
|--|--|---|
| <b>Core Courses (100 units)</b>  | <b>Core Courses (100 units)</b>  | <b>Course equivalents</b>   |
| <b>BIOL1002</b> Organisms to Ecosystems  | <b>BIOL1002</b> Organisms to Ecosystems  | No change   |
| <b>ENVS1001</b> Environmental Science Concepts and Methods                               | <b>ENVS1001</b> Environmental Science Concepts and Methods                           | No change   |
|  | <b>ENVS1002</b> Physical and Chemical Environmental Systems                          | Students in the pre-2020 program do not have to complete ENVS1002 |
| <b>ENVS1003</b> Environmental Values and Ethics  | <b>ENVS1003</b> Environmental Values and Ethics                                      | No change   |
| <b>SCIE1002</b> Multidisciplinary Laboratories   | <b>SCIE1002</b> Multidisciplinary Laboratories                                       | No change   |
| <b>STAT1070</b> Statistics for the Sciences  | <b>STAT1070</b> Statistics for the Sciences  | No change   |
| <b>ENVS2002</b> Environmental Legislation & Planning                                     | <b>ENVS2002</b> Environmental Legislation & Planning                                 | No change   |
| <b>GEOS2161</b> Spatial Science  | <b>GEOS2161</b> Spatial Science  | No change   |
| <b>PHYS2300</b> Energy and the Environment   |  | Students in the pre-2020 program will still complete PHYS2300.    |
| <b>ENVS3001</b> Integrated Impact Assessment   | <b>ENVS3001</b> Integrated Impact Assessment   | No change   |
| <b>ENVS3002</b> Environmental Management Perspectives                                    | <b>ENVS3002</b> Environmental Management Perspectives                                | No change   |

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From 2020, the **Directed Courses** have changed as follows:

| Pre-2020 Bachelor of Environmental Science & Management Program Structure – Directed Courses | 2020 Bachelor of Environmental Science & Management Program Structure – Directed Courses | Equivalencies  |
|--|--|--|
| <b>Math Directed (10 units)</b><br>Choose 10 units from the following:                       | <b>Math Directed (10 units)</b><br>Choose 10 units from the following:                   | <b>Course equivalents</b>  |
| <b>MATH1001</b> Preparatory Studies in Mathematics   | <b>MATH1001</b> Preparatory Studies in Mathematics                                       | No change  |
| <b>MATH1002</b> Foundational Studies in Mathematics  | <b>MATH1002</b> Foundational Studies in Mathematics                                      | No change  |
| <b>MATH1110</b> Mathematics for Engineering, Science and Technology 1                        | <b>MATH1110</b> Mathematics for Engineering, Science and Technology 1                    | No change  |
| <b>MATH1120</b> Mathematics for Engineering, Science and Technology 2                        | <b>MATH1120</b> Mathematics for Engineering, Science and Technology 2                    | No change  |
| <b>MATH1210</b> Mathematical Discovery 1   | <b>MATH1210</b> Mathematical Discovery 1   | No change  |
| <b>PHYS1150</b> Everyday Physics   |  | If you have already completed PHYS1150 it will still count towards your program as a Math Directed course. |
|  | <b>Directed Course (10 units)</b><br>Choose 10 units from the following:                 | Students in the pre-2020 program do not have to complete the program directed course                       |
|  | <b>ENVS3008</b> Organisational Placement in the Environmental Sector                     |  |
|  | <b>GEOS3250</b> Advanced Spatial Science   |  |

From 2020, the **Majors** have changed as follows:

| Pre-2020 Bachelor of Environmental Science & Management Program Structure - Majors |       | 2020 Bachelor of Environmental Science & Management Program Structure - Majors |       |
|--|-------|--|-------|
| Major Title  | Units | Major Title  | Units |
| Earth Systems  | 80    | Natural Resources and Hazards  | 80    |
| Ecosystems and Biodiversity  | 80    | Ecosystems and Biodiversity  | 80    |
| Sustainability   | 90    | Sustainability   | 80    |
| Marine Science   | 90    | Coastal and Marine Science   | 80    |

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# Bachelor of Environmental Science & Management

## TRANSITION ARRANGEMENTS - INFORMATION FOR STUDENTS WHO COMMENCED IN THE PROGRAM PRIOR TO 2020

### EARTH SYSTEMS MAJOR

+ Courses removed from the major will still be on offer and will count towards the pre-2020 Earth Systems Major.

^ ENVS3008 will still count as a directed course towards the pre-2020 Earth Systems Major.

| EARTH SYSTEMS MAJOR PRE-2020              |  |               | NATURAL RESOURCES AND HAZARDS MAJOR 2020              |   |               |
|---|--|---------------|---|---|---------------|
| <b>Directed Courses – Choose 20 units</b> |  |               | <b>Compulsory Courses – 50 units</b>                  |   |               |
| +CHEM1010                                 | Introductory Chemistry I                             | 10            |   |   |               |
| +CHEM1020                                 | Introductory Chemistry II                            | 10            |   |   |               |
| ~GEOS1040                                 | Earth's Dynamic Systems                              | 10            | ~GEOS1040   | Earth's Dynamic Systems                                       | 10            |
| +GEOS1050                                 | Earth Processes and Products                         | 10            |   |   |               |
|   |  |               | ~GEOS2050   | River Basin Processes   | 10            |
|   |  |               | ~GEOS2060   | Soil Properties and Processes                                 | 10            |
|   |  |               | ~GEOS3250   | Advanced Spatial Science                                      | 10            |
|   |  |               | ~GEOS3340   | Climate Change and Resource Management                        | 10            |
| <b>Directed Courses – Choose 30 units</b> |  |               | <b>Directed Courses – Choose 10 units</b>             |   |               |
| +CHEM2110                                 | Analytical Chemistry                                 | 10            |   |   |               |
| +CHEM2610                                 | Environmental Chemistry                              | 10            |   |   |               |
| ENVS2009                                  | Catchment and Water Resource Management              | 10            | ENVS2009  | Catchment and Water Resource Management                       | 10            |
| ~GEOS2050                                 | River Basin Processes                                | 10            |   |   |               |
| ~GEOS2060                                 | Soil Properties and Processes                        | 10            |   |   |               |
| GEOS2080                                  | Earth Science Field Course                           | 10            | GEOS2080  | Earth Science Field Course                                    | 10            |
| GEOS2200                                  | Earth's Sedimentary Rocks & Environments             | 10            | GEOS2200  | Earth's Sedimentary Rocks & Environments                      | 10            |
| <b>Directed Courses – Choose 40 units</b> |  |               | <b>Directed Courses – Choose 20 units</b>             |   |               |
| +CHEM3110                                 | Instrumental Chemical Analysis                       | 10            |   |   |               |
| +ECON3006                                 | Environmental Economics                              | 10            |   |   |               |
| +ENVS3004                                 | Ecotoxicology  | 10            |   |   |               |
| ENVS3007                                  | Environmental Remediation                            | 10            | ENVS3007  | Environmental Remediation                                     | 10            |
| ^ENVS3008                                 | Organisational Placement in the Environmental Sector | 10            |   |   |               |
| ENVS3009                                  | Advanced Water Science and Resource Management       | 10            | ENVS3009  | Advanced Water Science and Resource Management                | 10            |
|   |  |               | <ENVS3010   | Extended Organisational Placement in the Environmental Sector | 10            |
| ENVS3400                                  | Advanced Research Project                            | 10            | ENVS3400  | Advanced Research Project                                     | 10            |
| GEOS3220                                  | Coastal Environments and Processes                   | 10            | GEOS3220  | Coastal Environments and Processes                            | 10            |
| ~GEOS3250                                 | Advanced Spatial Science                             | 10            |   |   |               |
| GEOS3280                                  | Global Change and the Rise of Modern Environments    | 10            | GEOS3280  | Global Change and the Rise of Modern Environments             | 10            |
| ~GEOS3340                                 | Climate Change and Resource Management               | 10            |   |   |               |
|   |  | <b>*Total</b> |   |   | <b>*Total</b> |
|   |  | 90            |   |   | 80            |
| +Course to be removed from Major          |  |               | <New Course added                                     |   |               |
| *Change to major unit total               |  |               | ~Change from Directed to Compulsory major requirement |   |               |
| ^Change to Program Directed               |  |               |   |   |               |

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### ECOSYSTEMS AND BIODIVERSITY MAJOR

+ Courses removed from the major will still be on offer and will count towards the pre-2020 Ecosystems and Biodiversity Major.

^ ENVS3008 will still count as a directed course towards the pre-2020 Ecosystems and Biodiversity Major.

| ECOSYSTEMS AND BIODIVERSITY MAJOR<br>PRE-2020 |  |    | ECOSYSTEMS AND BIODIVERSITY MAJOR 2020    |   |    |
|---|--|----|---|---|----|
| <b>Directed Courses – Choose 10 units</b>     |  |    | <b>Directed Courses – Choose 10 units</b> |   |    |
| BIOL1001                                      | Molecules, Cells and Organisms                       | 10 | BIOL1001                                  | Molecules, Cells and Organisms                                | 10 |
| +CHEM1010                                     | Introductory Chemistry I                             | 10 |   |   |    |
| CHEM1020                                      | Introductory Chemistry II                            | 10 | CHEM1020                                  | Introductory Chemistry II                                     | 10 |
| GEOS1040                                      | Earth's Dynamic Systems                              | 10 | GEOS1040                                  | Earth's Dynamic Systems                                       | 10 |
| <b>Directed Courses – Choose 30 units</b>     |  |    | <b>Directed Courses – Choose 30 units</b> |   |    |
| BIOL2090                                      | Microbial Biology                                    | 10 | BIOL2090                                  | Microbial Biology   | 10 |
| +CHEM2110                                     | Analytical Chemistry                                 | 10 |   |   |    |
| +CHEM2610                                     | Environmental Chemistry                              | 10 |   |   |    |
| ENVS2004                                      | Ecology  | 10 | ENVS2004                                  | Ecology   | 10 |
| ENVS2005                                      | Ecology and Management of Australian Flora           | 10 | ENVS2005                                  | Ecology and Management of Australian Flora                    | 10 |
| ENVS2006                                      | Ecology and Management of Australian Fauna           | 10 | ENVS2006                                  | Ecology and Management of Australian Fauna                    | 10 |
| ENVS2009                                      | Catchment and Water Resource Management              | 10 | ENVS2009                                  | Catchment and Water Resource Management                       | 10 |
| <b>Directed Courses – Choose 40 units</b>     |  |    | <b>Directed Courses – Choose 40 units</b> |   |    |
| +BIOL3100                                     | Microbiology   | 10 |   |   |    |
| +CHEM3110                                     | Instrumental Chemical Analysis                       | 10 |   |   |    |
| +ECON3006                                     | Environmental Economics                              | 10 |   |   |    |
| ENVS3003                                      | Conservation Biology                                 | 10 | ENVS3003                                  | Conservation Biology  | 10 |
| ENVS3004                                      | Ecotoxicology  | 10 | ENVS3004                                  | Ecotoxicology   | 10 |
| ENVS3005                                      | Animal Behaviour                                     | 10 | ENVS3005                                  | Animal Behaviour  | 10 |
| ^ENVS3008                                     | Organisational Placement in the Environmental Sector | 10 |   |   |    |
| ENVS3009                                      | Advanced Water Science and Resource Management       | 10 | ENVS3009                                  | Advanced Water Science and Resource Management                | 10 |
|   |  |    | <ENVS3010                                 | Extended Organisational Placement in the Environmental Sector | 10 |
| ENVS3400                                      | Advanced Research Project                            | 10 | ENVS3400                                  | Advanced Research Project                                     | 10 |
| MARI3320                                      | Ecological Methodology                               | 10 | MARI3320                                  | Ecological Methodology  | 10 |
| SRMT3060                                      | Restoration Ecology                                  | 10 | SRMT3060                                  | Restoration Ecology   | 10 |
|   | Total  | 80 |   | Total   | 80 |
| +Course to be removed from Major              |  |    | <New Course added                         |   |    |
| ^Change to Program Directed                   |  |    |   |   |    |

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### SUSTAINABILITY MAJOR

^ ENVS3008 will still count as a directed course towards the pre-2020 Sustainability Major.

| SUSTAINABILITY MAJOR PRE-2020             |  |    | SUSTAINABILITY MAJOR 2020                 |   |    |
|---|--|----|---|---|----|
| <b>Directed Courses – Choose 10 units</b> |  |    | <b>Directed Courses – Choose 10 units</b> |   |    |
| BIOL1001                                  | Molecules, Cells and Organisms                       | 10 | BIOL1001                                  | Molecules, Cells and Organisms                                | 10 |
| ENVS1004                                  | Social Development & the Environment                 | 10 | ENVS1004                                  | Social Development & the Environment                          | 10 |
| GEOG1020                                  | Introduction to Human Geography                      | 10 | GEOG1020                                  | Introduction to Human Geography                               | 10 |
| <b>Directed Courses – Choose 30 units</b> |  |    | <b>Directed Courses – Choose 30 units</b> |   |    |
| ENVS2004                                  | Ecology  | 10 | ENVS2004                                  | Ecology   | 10 |
| ENVS2005                                  | Ecology and Management of Australian Flora           | 10 | ENVS2005                                  | Ecology and Management of Australian Flora                    | 10 |
| ENVS2006                                  | Ecology and Management of Australian Fauna           | 10 | ENVS2006                                  | Ecology and Management of Australian Fauna                    | 10 |
| ENVS2008                                  | The Sustainable Society                              | 10 | ENVS2008                                  | The Sustainable Society                                       | 10 |
| ENVS2009                                  | Catchment and Water Resource Management              | 10 | ENVS2009                                  | Catchment and Water Resource Management                       | 10 |
| GEOG2080                                  | Cities and Regions                                   | 10 | GEOG2080                                  | Cities and Regions  | 10 |
| GEOG2130                                  | Geographies of Development                           | 10 | GEOG2130                                  | Geographies of Development                                    | 10 |
| SOCS2400                                  | Applied Social Research                              | 10 | SOCS2400                                  | Applied Social Research                                       | 10 |
| <b>Directed Courses – Choose 40 units</b> |  |    | <b>Directed Courses – Choose 40 units</b> |   |    |
| ECON3006                                  | Environmental Economics                              | 10 | ECON3006                                  | Environmental Economics                                       | 10 |
| ENVS3003                                  | Conservation Biology                                 | 10 | ENVS3003                                  | Conservation Biology  | 10 |
| ENVS3006                                  | Sustainability: Theory and Practice                  | 10 | ENVS3006                                  | Sustainability: Theory and Practice                           | 10 |
| ^ENVS3008                                 | Organisational Placement in the Environmental Sector | 10 |   |   |    |
| ENVS3009                                  | Advanced Water Science & Resource Management         | 10 | ENVS3009                                  | Advanced Water Science & Resource Management                  | 10 |
|   |  |    | <ENVS3010                                 | Extended Organisational Placement in the Environmental Sector | 10 |
| ENVS3400                                  | Advanced Research Project                            | 10 | ENVS3400                                  | Advanced Research Project                                     | 10 |
| GEOG3090                                  | Society and Space                                    | 10 | GEOG3090                                  | Society and Space   | 10 |
| GEOG3240                                  | Globalisation: Cities, Economies                     | 10 | GEOG3240                                  | Globalisation: Cities, Economies                              | 10 |
| GEOS3340                                  | Climate Change and Resource Management               | 10 | GEOS3340                                  | Climate Change and Resource Management                        | 10 |
| SRMT3040                                  | Community Resource Management                        | 10 | SRMT3040                                  | Community Resource Management                                 | 10 |
| SRMT3050                                  | Sustainable Land Management                          | 10 | SRMT3050                                  | Sustainable Land Management                                   | 10 |
| SRMT3060                                  | Restoration Ecology                                  | 10 | SRMT3060                                  | Restoration Ecology   | 10 |
|   | Total  | 80 |   | Total   | 80 |
| ^Change to Program Directed               |  |    | <New Course added                         |   |    |

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# Bachelor of Environmental Science & Management and Bachelor of Environmental Science & Management/Bachelor of Business

## MARINE SCIENCE MAJOR TRANSITION ARRANGEMENTS - INFORMATION FOR STUDENTS WHO COMMENCED IN THE PROGRAM PRIOR TO 2020

### MARINE SCIENCE MAJOR – updated December 2019

# BIOL1001 will still be on offer and will count towards the pre-2020 Marine Science Major.

# MARI3330 will no longer be offered, if you have completed MARI3330 it will still count as a directed course towards the pre-2020 Marine Science Major.

> MARI2320 will no longer be offered. If you have not completed MARI2320 you will complete the replacement course MARI2500. Note: If you have completed MARI2320 and you would like to complete MARI2500 you can complete MARI2500 as long as you have elective room in your program. If you are unsure if you have elective room please email [programadvice@newcastle.edu.au](mailto:programadvice@newcastle.edu.au)

^ ENVS3008 will still count as a directed course towards the pre-2020 Marine Science Major.

| MARINE SCIENCE MAJOR PRE-2020                         |  |               | COASTAL AND MARINE SCIENCE MAJOR 2020      |   |               |
|---|--|---------------|--|---|---------------|
| <b>Compulsory Courses</b>                             |  |               | <b>Compulsory Courses</b>                  |   |               |
| #BIOL1001   | Molecules, Cells and Organisms                       | 10            |  |   |               |
| MARI1000  | Issues in the Marine Environment                     | 10            | MARI1000                                   | Issues in the Marine Environment                              | 10            |
| ENVS2004  | Ecology  | 10            | ENVS2004                                   | Ecology   | 10            |
| MARI2300  | Marine Biology                                       | 10            | MARI2300                                   | Marine Biology  | 10            |
| #MARI2320   | Marine Ecology                                       | 10            | =MARI2500                                  | Coastal & Marine Ecosystem Services                           | 10            |
|   |  |               | ~MARI3300                                  | Integrated Coastal Ecosystems                                 | 10            |
|   |  |               | ~MARI3320                                  | Ecological Methodology  | 10            |
| <b>Directed Courses – Choose 40 units.</b>            |  |               | <b>Directed Courses – Choose 20 units.</b> |   |               |
| ECON3006  | Environmental Economics                              | 10            | ECON3006                                   | Environmental Economics                                       | 10            |
| ENVS3005  | Animal Behaviour                                     | 10            | ENVS3005                                   | Animal Behaviour  | 10            |
| ^ENVS3008   | Organisational Placement in the Environmental Sector | 10            |  |   |               |
| ENVS3009  | Advanced Water Science & Resource Management         | 10            | ENVS3009                                   | Advanced Water Science & Resource Management                  | 10            |
|   |  |               | +ENVS3010                                  | Extended Organisational Placement in the Environmental Sector | 10            |
| ENVS3400  | Advanced Research Project                            | 10            | ENVS3400                                   | Advanced Research Project                                     | 10            |
| ~MARI3300   | Integrated Coastal Ecosystems                        | 10            |  |   |               |
| ~MARI3320   | Ecological Methodology                               | 10            |  |   |               |
| #MARI3330   | Marine Fisheries Biology and Management              | 10            |  |   |               |
| MARI3410  | Coral Reef Biology, Ecology and Sustainability       | 10            | MARI3410                                   | Coral Reef Biology, Ecology and Sustainability                | 10            |
|   |  | <b>*Total</b> |  |   | <b>*Total</b> |
|   |  | <b>90</b>     |  |   | <b>80</b>     |
| ~Change from Directed to Compulsory major requirement |  |               | +New Course added                          |   |               |
| *Change to major unit total                           |  |               | #Course to be removed from Major           |   |               |
| ^Change to Program Directed                           |  |               | =Replacement Course                        |   |               |