Curriculum and Assessment Plan: VCE Environmental Science

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| Senior secondary education provider details | |
| Senior secondary education provider name: |  |
| Submission number: |  |
| Contact name/s: |  |
| Contact details (email and telephone): |  |
| What is the accreditation period and title of the VCE study design being used to complete this document?  ***NOTE:*** *Please ensure that you use the study design that is accredited for the year that you plan to commence delivery.* |  |

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| **Schedule 8 – Minimum standards for registration to provide an accredited senior secondary course:**  **2 Student learning outcomes**  A senior secondary education provider that provides, or proposes to provide, an accredited senior secondary course must—   1. deliver the course to the standards established by the awarding body for the qualification; and 2. ensure that a student who satisfactorily completes all of the course requirements is entitled to be awarded the registered qualification.   **5 Teaching and learning**  A senior secondary education provider must have—   1. processes to ensure the consistent application of assessment criteria and practices; and 2. processes to oversee the conduct of assessments of the course including processes to conduct investigations and hearings and, if necessary, amend or cancel assessments.   *(Education and Training Reform Regulations 2017, Schedule 8.5)* | |
| **Evidence requirement** | Complete this template or provide a comparable curriculum and assessment plan for VCE Environmental Science as follows:   * for Units 1 to 4: a curriculum delivery plan identifying how students will meet the requirements of each outcome. * for Units 3 and 4: a School-assessed Coursework (SAC) plan for each assessment task in Units 3 and 4. |
| **What the VCAA is assessing** | A senior secondary education provider must be able to demonstrate that the format and conditions of tasks used for school-based assessment meet the requirements of the relevant VCE study design, the VCE assessment principles and the VCAA’s administrative requirements.  This is an aspect of the process to ensure that:   * the course is being delivered to the standards established by the VCAA * students are able to satisfactorily complete the course * there is consistent application of assessment criteria and practices * there are compliant processes in place to oversee the conduct of assessments. |
| **Compliance is measured against** | * VCE study design applicable for the year of delivery * [VCE assessment principles](https://www.vcaa.vic.edu.au/curriculum/vce/Pages/VCEPoliciesandGuidelines.aspx) * any additional documents as prescribed in the study design and located on the study’s webpage; e.g. VCAA Bulletin items * the VCE Administrative Handbook, particularly the section ‘Scored assessment: School-based Assessment’. |
| **Resources** | * [VCE Environmental Science study page](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/environmentalscience/Pages/Index.aspx) * [VCE assessment principles](https://www.vcaa.vic.edu.au/curriculum/vce/Pages/VCEPoliciesandGuidelines.aspx) * [VCE Administrative Handbook](https://www.vcaa.vic.edu.au/administration/vce-vcal-handbook/Pages/index.aspx) |

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| **Advice on completing these plans**   * A curriculum delivery plan for Units 1 and 2 or Units 3 and 4 must be completed for each unit the senior secondary education provider is applying for permission to deliver. Use the template provided. * For Units 3 and 4 **only**: A School-assessed Coursework (SAC) plan must be completed for each SAC task planned for delivery in Units 3 and 4. If only Units 1 and 2 are being applied for, this plan does not need to be completed. * Senior secondary education providers that have established documentation in place; e.g. assessment tasks, are invited to attach these as appendices. |
| **Checklist**  Prior to submitting this document, ensure the following points are checked:  Correct study design is being used.  ***NOTE:*** *Please ensure that you use the study design that is accredited for the year that you plan to commence delivery.*  Correct outcomes, key knowledge and key skills are being taught and assessed.  Students have opportunity to demonstrate the key knowledge and key skills required to satisfactorily meet the requirements of each outcome within the units.  Examples of teaching and learning activities are outlined in the plan.  Assessment task types and requirements reflect specifications set out within the study design.  The conditions under which the task will be run are fair to all students.  Timing of assessment task/s and the time/s allocated to the task/s is fair.  Instructions provided to students about task/s are appropriate and clear.  Authentication management is appropriate. |

Units 1 and 2 Curriculum delivery plan

The following curriculum delivery plan must be completed for each unit for which the senior secondary education provider is applying for permission to deliver.

Demonstration of achievement of outcomes and satisfactory completion of a unit are determined by evidence gained through the assessment of a range of learning activities and tasks. Teachers must develop courses that provide appropriate opportunity for students to demonstrate satisfactory achievement of each outcome. The decision about satisfactory completion of a unit is distinct from the assessment of levels of achievement. Schools will report a student’s result for each unit to the VCAA as S (Satisfactory) or N (Not Satisfactory). In each VCE study, teachers and schools determine the assessment tasks to be used at Units 1 and 2.

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| Provide details of the outcome, time period (Term/Week–Term/Week), key knowledge and key science skills *(from the study design)* | | | List and describe the learning activities that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome (this includes practical activities, demonstrations and excursions/field work) | List and describe the assessment tasks that will be used to assess students’ level of achievement. Include an estimate of when each task will occur |
| **Unit 1, Outcome 1:** <insert outcome statement – see the VCE Environmental Science study design> | | | | |
| **Anticipated teaching time allocation:** <insert as appropriate; e.g. Term 1 Week 1 – Term 1 Week 6> | | | | |
| **Key knowledge:** | | **Environmental Science Units 1–4 Key science skills:** | <Consider a range of resources when developing appropriate learning activities, e.g. Support Material found on the [VCE Environmental Science study page](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/environmentalscience/Pages/Index.aspx). Ensure that any activities directly sourced from a public resource are contextualised to your school/provider’s approach> | <Select and describe as appropriate. the VCE Environmental Science study design. Include an estimate of when the task will occur> |
| * <Select as appropriate. See the VCE Environmental Science study design> | | * <Select as appropriate. See the VCE Environmental Science study design> |
| **Unit 1, Outcome 2:** <insert outcome statement> | | | | |
| Anticipated teaching time allocation: | | | | |
| **Key knowledge:** | **Environmental Science Units 1–4 Key science skills:** | |  |  |
|  |  | |
| **Unit 1, Outcome 3:** <insert outcome statement> | | | | |
| Anticipated teaching time allocation: | | | | |
| **Key knowledge:** | **Environmental Science Units 1–4 Key science skills:** | |  |  |
|  |  | |
| **Unit 2, Outcome 1:** <insert outcome statement> | | | | |
| Anticipated teaching time allocation: | | | | |
| **Key knowledge:** | **Environmental Science Units 1–4 Key science skills:** | |  |  |
|  |  | |
| **Unit 2, Outcome 2:** <insert outcome statement> | | | | |
| Anticipated teaching time allocation: | | | | |
| **Key knowledge:** | **Environmental Science Units 1–4 Key science skills:** | |  |  |
|  |  | |
| **Unit 2, Outcome 3:** <insert outcome statement> | | | | |
| Anticipated teaching time allocation: | | | | |
| **Key knowledge:** | **Environmental Science Units 1–4 Key science skills:** | |  |  |
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1. List the resources that will be used in the curriculum delivery, including: textbooks, practical guides, simulations, online resources

Click here to enter text.

1. Practical work is a central component of learning and assessment. Outline how the logbook will be used by students and monitored by the teacher.

Click here to enter text.

1. Outline how risk assessment for practical activities will be managed.

Click here to enter text.

1. Outline how the Unit 1 Outcome 3 student-designed or student-adapted scientific investigation involving the generation of primary data will be managed, including the degree to which students are given choice of topic and the range of topics that will be offered to students.

Click here to enter text.

1. Outline how the Unit 2 Outcome 3 student research relating to the explanation of the application of science in environmental management will be managed, including the degree to which students are given choice of topic and the range of topics that will be offered to students.

Click here to enter text.

Units 3 and 4 Curriculum delivery plan

The following curriculum delivery plan must be completed for each unit for which the senior secondary education provider is applying for permission to deliver.

Demonstration of achievement of outcomes and satisfactory completion of a unit are determined by evidence gained through the assessment of a range of learning activities and tasks. Teachers must develop courses that provide appropriate opportunity for students to demonstrate satisfactory achievement of each outcome. The decision about satisfactory completion of a unit is distinct from the assessment of levels of achievement. Schools will report a student’s result for each unit to the VCAA as S (Satisfactory) or N (Not Satisfactory).

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| Provide details of the outcome, time period (Term/Week–Term/Week), key knowledge and key science skills *(from the study design)* | | | List and describe the learning activities that will be used to provide appropriate opportunity for students to demonstrate satisfactory achievement of the outcome (this includes practical activities, demonstrations and excursions/field work) | List and describe the assessment tasks that will be used to assess students’ level of achievement |
| **Unit 3, Outcome 1:** <insert outcome statement –see the VCE Environmental Science study design> | | | | |
| **Anticipated teaching time allocation:** <insert as appropriate; e.g. Term 1 Week 1 – Term 1 Week 6> | | | | |
| **Key knowledge:** | | **Environmental Science Units 1–4 Key science skills:** | <Consider a range of resources when developing appropriate learning activities, e.g. Support Material found on the [VCE Environmental Science study page](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/environmentalscience/Pages/Index.aspx). Ensure that any activities directly sourced from a public resource are contextualised to your school/provider’s approach> | <Select as appropriate. See pages the VCE Environmental Science study design. The timing and a description of the task are not required as an assessment plan is completed for each task in Units 3 and 4> |
| * <Insert as appropriate. See the VCE Environmental Science study design> | | * <Insert as appropriate. See the VCE Environmental Science study design> |
| **Unit 3, Outcome 2:** <insert outcome statement> | | | | |
| Anticipated teaching time allocation: | | | | |
| **Key knowledge:** | **Environmental Science Units 1–4 Key science skills:** | |  |  |
|  |  | |
| **Unit 4, Outcome 1:** <insert outcome statement> | | | | |
| Anticipated teaching time allocation: | | | | |
| **Key knowledge:** | **Environmental Science Units 1–4 Key science skills:** | |  |  |
|  |  | |
| **Unit 4, Outcome 2:** <insert outcome statement> | | | | |
| Anticipated teaching time allocation: | | | | |
| **Key knowledge:** | **Environmental Science Units 1–4 Key science skills:** | |  |  |
|  |  | |
| **Unit 4, Outcome 3:** <insert outcome statement> | | | | |
| Anticipated teaching time allocation: | | | | |
| **Key knowledge:** | **Environmental Science Units 1–4 Key science skills:** | |  |  |
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1. List the resources that will be used in the curriculum delivery, including: textbooks, practical guides, simulations, online resources

Click here to enter text.

1. Practical work is a central component of learning and assessment. Outline how the practical logbook will be used by students and monitored by the teacher.

Click here to enter text.

1. Outline how risk assessment for practical activities will be managed.

Click here to enter text.

1. Outline how the Unit 4 Outcome 3 student-designed scientific investigation involving the generation of primary data will be managed, including the degree to which students are given choice of topic and the range of topics that will be offered to students.

Click here to enter text.

Units 3 and 4 School-assessed Coursework (SAC) plan

In Units 3 and 4, specified assessment tasks are set by the VCE study design. In Units 3 and 4 Environmental Science there are five specified School-assessed Coursework (SAC) tasks. The following plan needs to be completed for each SAC task planned in Units 3 and 4. Please copy and paste the plan as appropriate.

1. Unit number/title

Click here to enter text.

1. Outcome number and outcome statement

Click here to enter text.

1. List the specific key knowledge being assessed by this SAC task

Click here to enter text.

1. List the specific Environmental Science Units 1–4 key science skills being assessed by this SAC task

Click here to enter text.

1. What is the proposed week of delivery for this SAC task (e.g. Term 1, Week 4)?

Click here to enter text.

1. What task type will be used for this SAC task?

Click here to enter text.

*Example: application of Earth systems thinking in the evaluation of a case study*

*Please refer to the applicable VCE study design.*

Click here to enter text.

*Use the following questions to help shape the response:   
How will the task be constructed? E.g., The task will be constructed as a set of x number of short answer questions and x number of extended response questions, including a table where students will map environmental effects related to the case study for each of Earth’s four systems.  
How will the task be designed?   
What stimulus materials will be used? E.g., Students respond to stimulus materials based on contemporary material.  
How will the task cater for a range of high, medium and low responses?*

1. Explain how the SAC task meets the [VCE assessment principles](https://www.vcaa.vic.edu.au/curriculum/vce/Pages/VCEPoliciesandGuidelines.aspx) (please refer to the document via the link to complete the response)

Click here to enter text.

*How is the SAC task valid and reasonable? How is the SAC task equitable?*

*How is the SAC task balanced? How is the SAC task efficient?*

1. Outline the conditions under which the task will run (include information on the lesson allocation, the amount of time allocated to each SAC task, length of the SAC task/s, conditions under which the SAC task will be run, degree of supervision, access to resources.)

Click here to enter text.

*Example: 90 minutes over two periods*

*30 minutes: students access stimulus materials and can discuss and annotate during this time*

*Stimulus materials and annotations collected by teachers at the end of the period*

*Task distributed under test conditions, with stimulus materials and annotations returned to students*

*10 minutes reading time*

*50 minutes: writing time (one period)*

1. What instructions are provided to students about the SAC task?

Click here to enter text.

*What is printed on the SAC task coversheet given to students?*

1. What materials can students use for the SAC task?

Click here to enter text.

*Example: Stimulus materials and student annotations returned by teacher, pens, highlighters, laptop,* *scientific calculator.*

1. How will it be ensured that student work can be authenticated for this task?

Click here to enter text.

*Example: Students can read and discuss the provided stimulus materials for the task during the initial 30 minutes. They can write notes and annotate their stimulus materials.*

*Notes and annotated stimulus materials will be collected by teachers and returned to students for the assessment task in the second period. No new materials can be brought into the second period.*

*All notes and annotations will be submitted with the task response.*

*If there will be multiple classes of this study, include information on how authentication of student work will be managed.*

*If materials available in the public domain will be used to create assessment tasks (e.g. commercially produced tasks, tasks used from previous years, past VCAA examination papers) explain how the materials will be modified to ensure student work can be authenticated.*

1. What assessment tool/s will be used to assess the SAC task?

Click here to enter text.

*Example: VCAA descriptors, Modified VCAA descriptors, Commercially developed marking guide, School-developed marking guide.*