Curriculum and Assessment Plan: VCE Algorithmics (HESS)

|  |  |
| --- | --- |
| 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.* |  |

Collection Notice

The Victorian Curriculum and Assessment Authority (VCAA) is a statutory authority continued under the Education and Training Reform Act 2006 (Vic). The VCAA collects the information requested in this form, which includes personal information within the meaning of the Privacy and Data Protection Act 2014 (Vic), for the purpose of assessing your institution’s application for recognition as a Senior School Provider.

The personal information collected in this form will be disclosed to and used by relevant VCAA employees and/or contractors for and in connection with the abovementioned purpose. The VCAA may also disclose the personal information collected in this form to organisations such as the Victorian Tertiary Admissions Centre (VTAC) and the Victorian Registration and Qualifications Authority (VRQA) to enable those organisations to contact your institution in relation to their functions. Additionally, in the event that this application is approved, the VCAA will use the personal information provided in this form to communicate with representatives of your institution regarding your institution’s ongoing recognition as a Senior School Provider. The personal information collected will not otherwise be used or disclosed by the VCAA except with the consent of the individual, or if the VCAA is required or otherwise permitted by law to do so. If the requested personal information is not provided, your institution’s application will not be considered by the VCAA. When an individual’s personal information is provided to the VCAA by a third party, the VCAA requests that the individual is made aware that their personal information will be or has been provided to the VCAA, the purpose for which it will be or was provided and to whom it will be or is likely to be disclosed. An individual may request access to personal information the VCAA holds about them and request its correction if inaccurate. Initial enquiries regarding access to personal information held by the VCAA in relation to this application can be made by contacting the VCE Curriculum Unit on [vcaa.permissions@education.vic.gov.au](mailto:vcaa.permissions@education.vic.gov.au). The VCAA Privacy Policy can be found at [www.vcaa.vic.edu.au/Footer/Pages/Privacy.aspx](file://VCAAFS01/Curriculum$/Shared/Authorisation%20files/2022/Changes%20for%202023/Study%20specific%20templates%20for%202024%20delivery/Business%20and%20Economics%20templates/www.vcaa.vic.edu.au/Footer/Pages/Privacy.aspx).

|  |  |
| --- | --- |
| **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 Algorithmics as follows:   * for Units 3 and 4: a curriculum delivery plan identifying how students will meet the requirements of each outcome. * for Units 3 and 4: a plan for each School-assessed Task (SAT). |
| **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) * administrative information for School-based Assessment located on the study’s webpage * 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 Algorithmics (HESS) study page](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/algorithmics/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) |

|  |
| --- |
| **Advice on completing these plans**   * A curriculum delivery plan must be completed for each unit the senior secondary education provider is applying for permission to deliver. Use the template provided. * A School-assessed Task (SAT) plan must be completed for each SAT planned for delivery in Units 3 and 4. Senior secondary education providers that have established documentation in place; e.g. curriculum delivery plans, 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 3 and 4 Curriculum delivery plan

The following curriculum delivery plan must be completed for each unit 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).

|  |  |  |  |
| --- | --- | --- | --- |
| Provide details of the outcome, time period (Term/Week–Term/Week), key knowledge and key 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 outcomes | 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 study design> | | | |
| **Anticipated teaching time allocation:** <insert as appropriate; e.g. Term 1 Week 1 – Term 1 Week 6> | | | |
| **Key knowledge:** | **Key skills:** | <Consider a range of resources when developing appropriate learning activities; e.g. Support Materials found on the [VCE Algorithmics (HESS) study page.](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/algorithmics/Pages/Index.aspx) Ensure that any activities directly sourced from a public resource are contextualised to your school/provider’s approach> | State the assessment task. 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 |
| * <select as appropriate from the VCE study design> | * <select as appropriate from the VCE study design> |
| **Unit 3, Outcome 2:** <insert outcome statement> | | | |
| **Anticipated teaching time allocation:** | | | |
| **Key knowledge:** | **Key skills:** |  |  |
|  |  |
| **Unit 3, Outcome 3:** <insert outcome statement> | | | |
| **Anticipated teaching time allocation:** | | | |
| **Key knowledge:** | **Key skills:** |  |  |
|  |  |
| **Unit 4, Outcome 1:** <insert outcome statement> | | | |
| **Anticipated teaching time allocation:** | | | |
| **Key knowledge:** | **Key skills:** |  |  |
|  |  |
| **Unit 4, Outcome 2:** <insert outcome statement> | | | |
| **Anticipated teaching time allocation:** | | | |
| **Key knowledge:** | **Key skills:** |  |  |
|  |  |
| **Unit 4, Outcome 3:** <insert outcome statement> | | | |
| **Anticipated teaching time allocation:** | | | |
| **Key knowledge:** | **Key skills:** |  |  |
|  |  |

What specification and uses of abstract data types (ADTs) are to be studied in Unit 3 Outcome 1?

Click here to enter text.

What pseudocode concepts are to be studied in Unit 3 Outcome 2?

Click here to enter text.

What are used to answer real-world problems in Unit 3 Outcome 3?

Click here to enter text.

What are the examples and common features of algorithms that have time complexities to be studied in Unit 4 Outcome 1?

Click here to enter text.

What divide and conquer algorithms are to be studied in Unit 4 Outcome 2?

Click here to enter text.

What ethical issues related to artificial intelligence and data-driven algorithms are to be studied in Unit 4 Outcome 3?

Click here to enter text.

Unit 3 School-assessed Coursework (SAC) plan

In Units 3 and 4, specified assessment tasks are set by the VCE study design. Specified assessment tasks for VCE Algorithmics (HESS) include School-assessed Coursework (SAC) tasks and School-assessed Tasks (SATs). Complete this plan for **Unit 3 Outcome 1**.

1. Outcome number and outcome statement

Click here to enter text.

1. List the specific key knowledge and key 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 is the task that will be used for this SAC?

Click here to enter text.

*Refer to the applicable VCE study design.*

1. How will the SAC task be structured?

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 and x number of extended response questions.  
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: 120 minutes over two periods*

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

*Task distributed under test conditions*

*10 minutes: reading time*

*80 minutes: writing time (20 mins in one period, 60 mins the following period)*

1. What instructions will be 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 will students be able to use for the SAC task?

Click here to enter text.

*Example: Pens, highlighters, laptop, textbook or other materials for research purposes, handwritten notes)*

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

Click here to enter text.

*Example: Students can read, discuss and research during initial 30 minutes. They can write notes and annotate their stimulus materials.*

*When reading time commences, all research materials will be removed. Students will be allowed to keep their annotated stimulus materials and written notes.*

*How will students notes be authenticated?*

*Students cannot remove materials after the end of the first period. They cannot bring in any new materials in the second period.*

*All notes and annotated materials will be submitted with the task.*

*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.*

Unit 3 School-assessed Coursework (SAC) plan

In Units 3 and 4, specified assessment tasks are set by the VCE study design. Specified assessment tasks for VCE Algorithmics (HESS) include School-assessed Coursework (SAC) tasks and School-assessed Tasks (SATs). Complete this plan for **Unit 3 Outcome 2**.

1. Outcome number and outcome statement

Click here to enter text.

1. List the specific key knowledge and key 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 is the task that will be used for this SAC?

Click here to enter text.

*Refer to the applicable VCE study design.*

1. How will the SAC task be structured?

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 and x number of extended response questions.  
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/Documents/vce/VCE_assessment_principles.docx) *(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: 120 minutes over two periods*

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

*Task distributed under test conditions*

*10 minutes: reading time*

*80 minutes: writing time (20 mins in one period, 60 mins the following period)*

1. What instructions will be 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 will students be able to use for the SAC task?

Click here to enter text.

*Example: Pens, highlighters, laptop, textbook or other materials for research purposes, handwritten notes)*

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

Click here to enter text.

*Example: Students can read, discuss and research during initial 30 minutes. They can write notes and annotate their stimulus materials.*

*When reading time commences, all research materials will be removed. Students will be allowed to keep their annotated stimulus materials and written notes.*

*How will students notes be authenticated?*

*Students cannot remove materials after the end of the first period. They cannot bring in any new materials in the second period.*

*All notes and annotated materials will be submitted with the task.*

*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.*

Unit 4 School-assessed Coursework (SAC) plan

In Units 3 and 4, specified assessment tasks are set by the VCE study design. Specified assessment tasks for VCE Algorithmics (HESS) include School-assessed Coursework (SAC) tasks and School-assessed Tasks (SATs). Complete this plan for **Unit 4 Outcome 3**.

1. Outcome number and outcome statement

Click here to enter text.

1. List the specific key knowledge and key 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/s will be used for this SAC task?

Click here to enter text.

*Example: structured questions, a report in written format.*

*Please refer to the applicable VCE study design.*

1. How will the SAC task be undertaken?

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 and x number of extended response questions.  
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/Documents/vce/VCE_assessment_principles.docx) *(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: 120 minutes over two periods*

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

*Task distributed under test conditions*

*10 minutes: reading time*

*80 minutes: writing time (20 mins in one period, 60 mins the following period)*

1. What instructions will be 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 will students be able to use for the SAC task?

Click here to enter text.

*Example: Pens, highlighters, laptop, textbook or other materials for research purposes, handwritten notes)*

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

Click here to enter text.

*Example: Students can read, discuss and research during initial 30 minutes. They can write notes and annotate their stimulus materials.*

*When reading time commences, all research materials will be removed. Students will be allowed to keep their annotated stimulus materials and written notes.*

*How will students notes be authenticated?*

*Students cannot remove materials after the end of the first period. They cannot bring in any new materials in the second period.*

*All notes and annotated materials will be submitted with the task.*

*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.*

Unit 3 School-assessed Task (SAT) plan

In Units 3 and 4, specified assessment tasks are set by the VCE study design. Specified assessment tasks for VCE Algorithmics (HESS) include School-assessed Coursework (SAC) tasks and School-assessed Tasks (SATs). The SAT is completed across Units 3 and 4. Complete this plan for the SAT completed in **Unit 3 Outcome 3**.

1. Outcome number and outcome statement

Click here to enter text.

1. List the specific key knowledge and key skills being assessed by the SAT

Click here to enter text.

1. In what week/s will the SAT be undertaken?

Click here to enter text.

1. Provide a description of the SAT

Click here to enter text.

1. Outline the conditions under which the task will run (include information on the lesson allocation, the amount of time allocated to the SAT, conditions under which the SAT will run, degree of supervision, access to resources.)

Click here to enter text.

1. What instructions will be provided to students about the SAT? List any resources also provided to students.

Click here to enter text.

1. What materials will students be able to use for the SAT?

Click here to enter text.

1. How will authentication of student work be managed for the SAT?

Click here to enter text.

1. How will the task specifications, assessment criteria and performance-level descriptors be used to guide students in preparing for the SAT?

Click here to enter text.

Unit 4 School-assessed Task (SAT) plan

In Units 3 and 4, specified assessment tasks are set by the VCE study design. Specified assessment tasks for VCE Algorithmics (HESS) include a School-assessed Coursework (SAC) tasks and School-assessed Tasks (SATs). The SAT is completed across Units 3 and 4. Complete this plan for the SAT completed in **Unit 4**.

1. Unit number/title

Click here to enter text.

1. Outcome numbers and outcome statements

Click here to enter text.

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

Click here to enter text.

1. In what week/s will the tasks be undertaken? (e.g. Term 1, Week 4)

Click here to enter text.

1. Provide a description of the tasks

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 and x number of extended response questions.  
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. Outline the conditions under which the SATs will be undertaken (include information on the lesson allocation, the amount of time allocated to each task, length of the task/s, conditions under which the task will be run, degree of supervision, access to resources.)

Click here to enter text.

*Example: 120 minutes over two periods*

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

*Task distributed under test conditions*

*10 minutes: reading time*

*80 minutes: writing time (20 mins in one period, 60 mins the following period)*

1. What instructions will be provided to students about the SAT? List any resources also provided to students.

Click here to enter text.

1. What materials will students be able to use for the SATs?

Click here to enter text.

*Example: Pens, highlighters, laptop, textbook or other materials for research purposes (removed when writing commences)*

1. How will authentication of student work be ensured for the SAT task?

Click here to enter text.

1. How will the task specifications, assessment criteria and performance-level descriptors be used to guide students in preparing for the SAT?

Click here to enter text.