PRE-APPROVED LEARNING AND ASSESSMENT PLAN

**Stage 2 Scientific Studies**

Pre-approved learning and assessment plans are for *school use only*.

* Teachers may make changes to the plan, retaining alignment with the subject outline.
* The principal or delegate endorses the use of the plan, and any changes made to it, including use of an addendum.
* The plan does not need to be submitted to the SACE Board for approval.

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| School |  | Teacher(s) |  |

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| SACESchool Code |  | Year |  | Enrolment Code |  | Program Variant Code (A–W) |
| Stage | Subject Code | No. of Credits (10 or 20) |
|  |  |  | **2019** | **2** |  |  |  | **20** | **A** |

**Addendum – changes made to the pre-approved learning and assessment plan**

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| Describe any changes made to the pre-approved learning and assessment plan to support students to be successful in meeting the requirements of the subject. In your description, please explain:* what changes have been made to the plan
* the rationale for making the changes
* whether these changes have been made for all students, or for individuals within the student group.
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**Endorsement**

The use of the learning and assessment plan is approved for use in the school. Any changes made to the plan support student achievement of the performance standards and retain alignment with the subject outline.

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| Signature of principal or delegate |  | Date |  |

Stage 2 Scientific Studies (20-credits)

Assessment Overview

The table below provides details of the planned tasks and shows where students have the opportunity to provide evidence for each of the specific features of all of the assessment design criteria.

| **Assessment Type and Weighting** | **Details of assessment** | **Assessment Design Criteria** | **Assessment conditions**(e.g. task type, word length, time allocated, supervision) |
| --- | --- | --- | --- |
| **IAE** | **KA** |
| **Assessment Type 1:** **Inquiry Folio****Weighting****50%** | **SIS Proposal for Individual Inquiry (Assessment Type 3)**In preparation for their external assessment, students individually prepare a proposal for an investigation for which the outcome is unknown. The design proposal includes: a question/hypothesis, problem/need, identification of variables and discussion of all variables, an outline of an approach or method or engineering design of a model, a plan for conducting the research. | 1 | 1, 3 | Individual proposal.Maximum 3 minutes oral or 500 words, or equivalent in multimodal form. |
| **SIS: Games Analysis using Technology**Students to wear a GPS sports device for recording of data in a game of modified AFL (or other games). They analyse their own performance using this technology and consider the accuracy of the data from the equipment. Students also consider the accuracy of the equipment. | 2, 3, 4 |  | Individual report to a maximum of 4 A4 pages. |
| **SIS: Debate-Technology in Sport**Students work together in small groups to undertake research (using scientific methods) and present in a debate format whether “Technology has/not enhanced modern sport”. | 4, 5 | 1, 3 | Maximum 3 minutes oral presentation in a debate. |
| **SIS Individual Design Task**Students design and conduct a practical investigation to test the “Effect of distraction on skill execution”. Students undertake this task individually and write a report to analyse their data and evaluate the method. | 1, 2, 3, 4 | 3 | Individual report.Maximum 2 A4 pages – 1 page for design; 1 page for evaluation.Investigation is conducted in groups. |
| **SHE Task**Students choose a topic related to Sport and Nutrition and investigate the role of new technologies, communication, the influence of other areas of science, and the beneficial or unexpected consequences. They explore and understand the connection between science and society through this topic. | 4 | 1, 2 | Individual. Maximum 1000 words or 6 minutes if oral, or equivalent in multimodal form. |
| **Assessment Type 2:** **Collaborative Inquiry****Weighting** **20%** | **Collaborative Inquiry – group design:**Students work in groups to choose an investigation of interest, within this framework (Sports Drink or Sports Device), for which the outcome is uncertain. They record their individual contribution and progress in a journal to reflect their learning and development of the method. They also record the data collected and analyse it for meaning.After conducting the investigation, students individually prepare a presentation in the form of a pitch, defence, or justification that evaluates the procedures used and the effectiveness of the collaboration. | 1, 2, 3, 4, 5 |  | Personal journal – maximum 12 A4 pages.Pitch, defence, justification – maximum 5 minutes. |
| **Assessment Type 3: External Assessment Individual Inquiry** **Weighting****30%** | Students undertake one individual inquiry using the proposal developed and assessed in Assessment Type 1: Inquiry Folio.Students use the design proposal to conduct an investigation for which the outcome is uncertain. They select either a scientific method or the engineering design process to conduct an investigation based on a question, problem, need or opportunity identified by each student.Students present an individual report that summarises the proposal, identifies any modifications from the proposal, analyses data and evaluates the methods or models used. The report includes: an introduction, summary of design including hypothesis, modifications, results of the practical, analysis of results, identification of trends and linking results to relevant discipline knowledge, evaluation of method/model used, identification of sources of uncertainty, conclusion with justification of the limitations of the investigation, citations and referencing. | 3, 4 | 1, 3 | Individual, maximum of 1500 words or equivalent in multimodal form. |

***Seven assessments.*** *Please refer to the Stage 2 Scientific Studies subject outline.*