**Sample Assessment Outline**

Mathematics Methods

ATAR Year 12

**Copyright**

© School Curriculum and Standards Authority, 2017

This document – apart from any third party copyright material contained in it – may be freely copied, or communicated on an intranet, for non-commercial purposes in educational institutions, provided that the School Curriculum and Standards Authority is acknowledged as the copyright owner, and that the Authority’s moral rights are not infringed.

Copying or communication for any other purpose can be done only within the terms of the *Copyright Act 1968* or with prior written permission of the School Curriculum and Standards Authority. Copying or communication of any third party copyright material can be done only within the terms of the *Copyright Act 1968* or with permission of the copyright owners.

Any content in this document that has been derived from the Australian Curriculum may be used under the terms of the Creative Commons [Attribution 4.0 International (CC BY)](https://creativecommons.org/licenses/by/4.0/)licence.

**Disclaimer**

Any resources such as texts, websites and so on that may be referred to in this document are provided as examples of resources that teachers can use to support their learning programs. Their inclusion does not imply that they are mandatory or that they are the only resources relevant to the course.

Sample assessment outline

Mathematics Methods – ATAR Year 12

Unit 3 and Unit 4

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assessment  type** | **Assessment type  weighting** | **Assessment**  **task weighting** | **When** | **Assessment** | **Syllabus content** |
| Response | 40% | 6% | Semester 1  Week 5 | **Task 2:** In-class test | **Further differentiation and applications:** exponential and trigonometric functions, differentiation rules, the second derivative and applications of differentiation |
| 8% | Semester 1  Week 10 | **Task 3:** In-class test | **Integrals:** anti-differentiation, definite integrals and the Fundamental theorem, applications of integration |
| 7% | Semester 1  Week 13 | **Task 4:** In-class test | **Discrete random variables:** general discrete random variables, Bernoulli and binomial distributions |
| 6% | Semester 2  Week 5 | **Task 7:** In-class test | **The logarithmic function:** logarithmic functions, calculus of the natural logarithmic functions |
| 7% | Semester 2  Week 9 | **Task 8:** In-class test | **Continuous random variables and the normal distribution:** general continuous random variables, normal distributions |
| 6% | Semester 2  Week 14 | **Task 10:** Assignment with in-class validation | **Interval estimates for proportions:** random sampling, sample proportions, confidence intervals for proportions |
| Investigation | 20% | 6% | Semester 1  Week 3 | **Task 1:** Select, adapt and apply models to investigate and solve practical problems | **Further differentiation and applications:** exponential and trigonometric functions |
| 6% | Semester 2  Week 3 | **Task 6:** Select, adapt and apply models to investigate and solve practical problems | **The logarithmic function:** logarithmic functions |
| 8% | Semester 2  Week 13 | **Task 9:** Plan, research, conduct and communicate the findings of an investigation | **Interval estimates for proportions:** random sampling and sample proportions |
| Examination | 40% | 15% | Semester 1  Week 15 | **Task 5: Semester 1 examination** Two sections, Calculator-free (50 mins) and Calculator-assumed (100 mins) | Application of mathematical understanding and skills to analyse, interpret and respond to a variety of question types that require both open and closed responses based on Unit 3 content |
| 25% | Semester 2  Week 15 | **Task 11: Semester 2 examination** Two sections, Calculator-free (50 mins) and Calculator-assumed (100 mins) | Application of mathematical understanding and skills to analyse, interpret and respond to a variety of question types that require both open and closed responses based on Unit 3 and Unit 4 content |
| **Total** | **100%** | **100%** |  |  |  |