Sample Assessment Outline

Mathematics Methods

ATAR Year 12

**Acknowledgement of Country**

Kaya. The School Curriculum and Standards Authority (the Authority) acknowledges that our offices are on Whadjuk Noongar boodjar and that we deliver our services on the country of many traditional custodians and language groups throughout Western Australia. The Authority acknowledges the traditional custodians throughout Western Australia and their continuing connection to land, waters and community. We offer our respect to Elders past and present.

**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 (the 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 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. Teachers must exercise their professional judgement as to the appropriateness of any they may wish to use.

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% | 9% | Semester 1Week 8 | **Task 2:** In-class test | **Further differentiation and applications:** exponential and trigonometric functions, differentiation rules, the second derivative and applications of differentiation (3.1.1–3.1.16)**Integrals:** anti-differentiation, definite integrals and the Fundamental theorem (3.2.1–3.2.17) |
| 10% | Semester 1Week 14 | **Task 3:** In-class test | **Integrals:** applications of integration (3.2.18–3.2.22)**Discrete random variables:** general discrete random variables, Bernoulli and binomial distributions (3.3.1–3.3.16) |
| 7% | Semester 2Week 7 | **Task 6:** In-class test | **The logarithmic function:** logarithmic functions, calculus of the natural logarithmic functions (4.1.1–4.1.14)**Continuous random variables:** general continuous random variables (4.2.1–4.2.4) |
| 14% | Semester 2Week 14 | **Task 7:** In-class test | **Continuous random variables and the normal distribution:** normal distributions(4.2.5–4.2.7)**Interval estimates for proportions:** random sampling, sample proportions, confidence intervals for proportions (4.3.1–4.3.10) |
| **Investigation** | 20% | 10% | Semester 1Week 5 | **Task 1:** Plan, research, conduct and communicate the findings of an investigation | **Further differentiation and applications:** differentiation rules, applications of differentiation (3.1.7–3.1.16) |
| 10% | Semester 2Week 2 | **Task 5:** Select, adapt and apply models to investigate and solve practical problems | **The logarithmic function:** logarithmic functions (4.1.1–4.1.8) |
| **Examination** | 40% | 15% | Semester 1Week 15 | **Task 4: 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 2Week 15 | **Task 8: 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%** |  |  |  |