

Mathematics with Statistics Level 3

Course Requirements:

Mathematics with Statistics Level 3 builds on the Level 2 Mathematics programme. Students should have achieved at least 12 credits at Level 2 Mathematics. If students are wishing to attempt any of the Statistics externals, then they need to have passed at least one external Level 2 Mathematics standard- either algebra or statistics.

Aims:

The aim of this course is to build on students' knowledge from Level 2 Mathematics. It will also introduce students to some new areas of Mathematics, namely linear programming and statistical reports as well as an in-depth analysis of probability distributions. (normal, rectangular, triangle, binomial, poisson)

Course Content:

The course will cover the following units of work:

- Bivariate Data
- Time Series
- Formal Inference
- Simultaneous Equations
- Linear Programming
- Probability Distribution
- Statistical Reports

Where can this subject take you?

This course is for students who intend to gain tertiary qualifications in Mathematics or professions requiring competency in Mathematics as part of a degree, diploma or certificate. For example: Health Sciences, Social Development, Commerce, Engineering. It will also support learning in other areas, particularly Science and Commerce. Statistics also forms part of the Group B subjects required for university entrance. This is a challenging course designed for capable, motivated students.

Further Assessment Opportunity and Resubmission

(Refer to student Handbook for more information)

A further assessment opportunity occurs after you have submitted work / sat a test for an assessment; you do a new assessment after further learning has taken place.

For this course there will be one further assessment opportunity for each standard.

A resubmission can be offered to you by the teacher if they believe you can correct errors or omissions in your work in a short period of time; it does not involve a new assessment. A resubmission must take place before the teacher gives any feedback on the work done. There can be only one resubmission.

Appeals (Please refer to student Handbook for more information)

If you are unhappy with any of your results you should discuss this with your teacher. If you are still unhappy then an Appeals form should be completed; this is available from the HoF; forms need to be completed and returned to your HoF within 5 school days of receiving your grade. If you are still not happy you can then see the Principal's Nominee. At NO time, during this process, should you contact NZQA.

Head of Faculty

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Assessment Chart

| Number | Title | Credits | US/AS | Internal/ External | Format | Literacy | Numeracy | Indicative date |
|--------|---|---------|-------|-----------------------|--------|---------------|----------|--------------------|
| 91581 | Investigate Bivariate Data | 4 | AS | Int | Test | L1Lit | Yes | Term 1 |
| 91580 | Investigate Time Series Data | 4 | AS | Int | Test | L1Lit | Yes | Term 1 |
| 91582 | Use statistical methods to make a formal inference | 4 | AS | Int | Test | L1Lit | Yes | Term 1-2 |
| 91587 | Apply systems of simultaneous equations in solving problems | 3 | AS | Int | Test | No | Yes | Term 2-3 |
| 91574 | Apply linear programming methods in solving problems | 3 | AS | Int | Test | No | Yes | Term 3 |
| 91586 | Apply probability distribution models to solve problems | 4 | AS | Ext | Exam | No | Yes | Term 3-4 |
| 91584 | Evaluate statistically based reports | 4 | AS | Ext | Exam | L1Lit WLit | Yes | Term 3-4 |

Entry into externals will be based on:

Students having passed at least one external Level 2 Mathematics standard (either algebra or probability) and achieved a Merit or Excellence in each of the first three Level 3 internal achievement standards. A high level of attendance together with a good work ethic and commitment to studies are also expected.