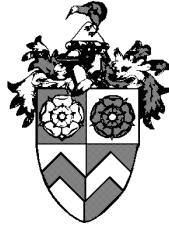


Rosehill College



Years 12 & 13 Course Information

2012



Table of Contents

	Pages
Section 1	
COURSE INFORMATION	
Guidelines for Selecting Your Subjects for 2012	2
Senior School Subjects and Subject Codes 2012	3
Year Level Course Requirements	6
Entry Requirements for Senior Subjects	7
Qualifications offered at Rosehill College	8
NCEA Entry Fees	8
Financial Assistance	9
Other National Certificate Qualifications	9
Common University Entrance Standard	12
Subject Requirements and Recommendations for Careers	13
People to see for Subject Advice	27
Course Fees	27
Rosehill College Curriculum Map	28
Section 2	
SUBJECT DESCRIPTIONS	
The Arts	31
Business Education	40
English	46
English for Speakers of Other Languages	49
Humanities	51
Languages	56
Mathematics	59
Physical Education and Health	62
Sciences	66
Technology	71



Selecting Your Subjects for 2012

The information in this handbook is designed to help you choose your subjects for 2012 carefully. The subjects you select are crucial for your future, so it is important that you choose the right course direction. The further you go in the senior school, the more difficult it becomes to change that direction. That is why the very best advice is to *keep as broad a range of subjects for as long as possible*.

When selecting your subjects, answer these questions:

- ***What qualifications do I want to gain while I am at school?***
Check the Qualifications section of this handbook.
- ***What qualifications and subjects do I need for tertiary study and / or for the work I hope to do when I leave school?***
Access the Careers Services website on <http://www.careers.govt.nz/> and talk with Mrs McConchie, the Careers Advisor. You must ensure that you consider your possible future career path carefully.

Also, check the Subject Requirements and Recommendations for Careers section of this handbook.

- ***What subjects do I enjoy?***
Reflect on the subjects you have studied already and take time to read the Subject Descriptions either in this handbook or on the Rosehill College website.
- ***Will I have a good chance of success in each of these subjects?***
Think about your previous results to be sure that you can cope with the subjects you choose.
- ***Do I have the prerequisites for these subjects?***
Course completion this year ie the submission of all assessments, is a requirement for entry into courses next year. Check the specific Entry Requirements for each subject.
- ***What does this subject lead to?***
Study the Rosehill College Curriculum Map and the descriptions of where each course leads. You need to be sure that the course you select leads on to a full range of other subjects, so that there is coherence about what you study in the senior school.
- ***Have I met the requirements for my year level?***
Check the Year Level Requirements section of this handbook.
- ***Have I discussed my choices with my parent(s)/caregiver(s) and teachers - tutor teacher, subject teachers, and Head of House?***
Before a course is confirmed it must be approved by your parent/caregiver, Tutor Teacher and/or Head of House and, if entry requirements have not been met, by the relevant HOD.



Senior School Subjects and Subject Codes 2012

Year 11 Subjects and Codes

Information about these courses can be found in the Course Information Booklet for Year 11 available to look at in the Library, from your Tutor teacher or on Rosnet.

SUBJECT	CODE
Accounting	11ACC
Advanced Music	11ADM
Advanced English	11ENA
Advanced Mathematics	11MAA
Advanced Physical Education & Health	11PEA
Advanced Science	11SCA
Bridging Mathematics	11MAB
Dance	11DAN
Drama	11DRA
Economics	11ECO
Communication English	11ENC
Employment Skills and Keyboarding	11ESK
English	11ENG
English for new students to New Zealand	11REC
English for Speakers of Other Languages	11ESL
Food and Nutrition	11FDN
Food Technology	11TEF
French as a Second Language	11FRE
General Science	11SCG
Geography	11GEO
German as a Second Language	11GER
Graphics and Design	11GDE
Health Education	11HEA
History	11HIS
Introductory Workshop Practice	11IWP
Mathematics	11MAT
Mathematics Applied 1	11MAP
Music	11MUS
NZASE Science	11SCN
Photography and Design	11PHD
Physical Education & Health	11PED
Social Studies	11SOC
Science	11SCI
Spanish as a Second Language *	11SPA
Technology	11TEC
Te Reo Maori	11MAO
Textiles	11TEX
Visual Art	11ART



Year 12 Subjects and Codes

SUBJECT	CODE	PAGE
Accounting	12ACC	41
Advanced English	12ENA	47
Advanced Mathematics	12MAA	60
Art History	12ARH	35
Automotive Engineering	12AEN	72
Biology	12BIO	67
Bridging Mathematics	12MAB	56
Business Communications	12BCM	41
Business Studies	12BUS	41
Chemistry	12CHE	67
Classical Studies	12CLS	52
Communication English	12ENC	47
Computer Studies	12CST	42
Computer Technology	12CTY	42
Creative Pattern-making and Design	12PDN	73
Design	12ARD	35
Dance	12DAN	32
Drama	12DRA	32
Economics	12ECO	43
Electronics	12ELN	67
English	12ENG	47
English for Speakers of Other Languages	12ESL	50
English for University Entrance	12EUE	50
Financial Administration	12FAD	43
Food and Nutrition	12FDN	72
Food Technology	12TEF	74
French as a Second Language	12FRE	57
Geography	12GEO	52
Graphics and Design	12GDE	72
Health	12HEA	63
History	12HIS	52
Hospitality 1	12HO1	72
Hospitality 2	12HO2	73
Information Management	12IMT	43
Mathematics 1	12MAT1	60
Mathematics 2	12MAT2	60
Media Studies	12MED	53
Music	12MUS	34
Painting	12PAI	36
Performing Arts Technology	12PAT	33
Photography	12PHO	36
Physical Education: Sports Education	12PED	63
Physical Education: Sports Leadership	12PEL	63
Physical Education: Outdoor Education	12PEO	64
Physics	12PHY	68
Precision Engineering	12PNG	73
Printmaking and Sculpture	12PSC	36
Spanish as a Second Language	12SPA	57



Year 12 Subjects and Codes Continued

SUBJECT	CODE	PAGE
Technology	12TEC	73
Te Reo Maori	12MAO	57
Tourism A	12TOA	53
Tourism B	12TOB	53
Trade Skills A	12TSA	74
Trade Skills B	12TSB	74

Year 13 Subjects and Codes

SUBJECT	CODE	PAGE
Accounting^	13ACC	44
Automotive Engineering	13AEN	74
Biology^	13BIO	68
Business Studies	13BUS	44
Chemistry^	13CHE	69
Classical Studies^	13CLS	54
Communication English	13ENC	47
Computer Literacy for Beginners	13CLB	44
Computer Technology^	13CTY	45
Dance^	13DAN	33
Design^	13ARD	37
Drama^	13DRA	33
Economics^	13ECO	45
Electronics	13ELN	69
English^	13ENG	48
English for Speakers of Other Languages	13ESL	50
English for University Entrance	13EUE	50
French as a Second Language^	13FRE	57
Geography^	13GEO	54
Graphics and Design^	13GDE	74
History^	13HIS	54
History of Art^	13ARH	37
Hospitality	13HOS	75
Information Management	13IMT	45
Mathematics with Calculus^	13MAC	61
Mathematics - Statistics and Modelling^	13MAS	61
Media Studies^	13MED	54
Music^	13MUS	34
Painting^	13PAI	37
Photography^	13PHO	38
Physical Education^	13PED	64
Physical Education: Sports Leadership	13PEL	64
Physical Education: Outdoor Education^	13PEO	65
Physics^	13PHY	69
Precision Engineering	13PNG	75
Printmaking^	13PTM	38
Science^	13SCI	69
Sculpture^	13SCU	38
Spanish as a Second Language^	13SPA	58
Te Reo Maori^	13MAO	58



Year Level Course Requirements 2012

Requirements for Year 11 Students

Year 11 students are in their third year of secondary schooling. They **must** select a course in **each** of these Learning Areas: **English, Mathematics** and **Science**. The actual course in each of these subjects will be confirmed on the basis of the Student's Year 10 results. They must then select **three** other courses.

Year 11 students must ensure they select courses at an appropriate level of difficulty:

- All Year 11 courses are assessed by mainly achievement standards with a few unit standards which earn credits towards NCEA Level 1 and, in some cases, another National Certificate. To achieve NCEA Level 1, students need 80 credits.
- To gain NCEA Level 1 students must achieve 10 literacy and 10 numeracy credits.
- Year 11 students intending to go to university should note that the Common University Entrance Standard requires a minimum of 14 credits in Maths at Level 1.

Requirements for Year 12 Students

Year 12 students are in their fourth year of secondary schooling. They must select a full year **English** course and **five** other full year courses. **There is no Study time.**

Year 12 students must ensure they select courses at an appropriate level of difficulty:

- Most Year 12 students will study courses that are assessed by achievement and/or unit standards and earn credits towards NCEA Level 2 and, in some cases, another National Certificate.
- To gain NCEA Level 2, students need 80 credits, 60 of which must be at Level 2.
- A number of Year 12 students will select courses at other year levels, depending on previous successes and choices.
- Year 12 students intending to go to university should note that the Common University Entrance Standard requires a minimum of 14 credits at Level 1 or higher in Mathematics plus a minimum of 8 credits at Level 2 or higher in English or Te Reo Maori - 4 of these credits must be in reading and 4 must be in writing - see page 13.
- Year 12 students, who intend going to university are advised to take **five** courses listed as University Entrance approved subjects on page 13.

Requirements for Year 13 Students

Year 13 students are in their fifth year of secondary schooling. They must select **five** full year courses. They may choose Study for **one** block.

Year 13 students must ensure they select courses at an appropriate level of difficulty:

- Most Year 13 students will study courses that are assessed by achievement and/or unit standards and earn credits towards NCEA Level 3 and, in some cases, another National Certificate.
- To gain NCEA Level 3, students need 80 credits, 60 of which must be at Level 3, and 20 credits at Level 2 or above.
- A number of Year 13 students will select courses at other year levels, depending on previous successes and choices.
- Some Year 13 students may consider studying towards the Scholarship standards – see page 9 for details of the New Zealand Scholarship. The subjects with Scholarship standards are indicated on page 5 with a ^. Students should express their interest in sitting these external exams to subject teachers at the beginning of the year.
- Year 13 students intending to go on to university must note that the Common University Entrance Standard requires a minimum of 14 credits at Level 1 or higher in Mathematics plus a minimum of 8 credits at Level 2 or higher in English or Te Reo Maori - 4 of these credits must be in reading and 4 must be in writing - see page 14. In addition, many tertiary courses have limited entry requirements – see pages 14 – 21.
- Year 13 students, who intend going to university are advised to take **five** courses listed as University Entrance approved subjects on Page 13.



Entry Requirements for Senior Subjects

In each senior subject description, on pages 27-75, departments have specified how the following school-wide procedures for entry will be applied. Students can find this information under the headings:

Entry Requirements:

This course leads to:

Entry Requirements for NCEA Level 1

Year 10 students have automatic entry into NCEA Level 1 courses. However:

1. The HODs of Mathematics, Science, English and Physical Education & Health will recommend that Year 11 students study a particular NCEA Level 1 course, in accordance with individual learning needs and based on results gained in Year 10.
2. Students wishing to take a second language or Te Reo Maori, Music, Art or Drama must demonstrate prior learning **or** have HOD approval.

Entry Requirements for NCEA Levels 2 & 3

To proceed from a Level 1 or 2 course assessed by achievement standards to a Level 2 or 3 course assessed by achievement standards, students must meet the following entry requirements:

1. A student must have achieved between 50-55% of the credits available in the previous course or a specified related course. Pre-enrolment for a course will be determined from internal achievement standards results and from the results gained in school-based assessments for external standards assessed in the Term 3 examinations. Enrolment for a Level 2 or 3 course will be confirmed by the results of the NZQA external examinations. Students who do not gain the required credits from the external examinations in November will require approval from the HOD to enrol in the subject.
2. Heads of Departments may also specify particular Achievement Standards in which a student must have gained 'Achieved' in a summative assessment.
3. A student must have submitted all assessments in this year's course.
4. If a student does not meet the above requirements they may seek the approval of the Head of Department to enter a Level 2 or 3 course.
5. Entry to advanced courses is by invitation. It will be expected that students will have achieved at the Merit or Excellence level in the achievement standards offered in the previous course.
6. If a student failed to meet the requirements specified in 1 or 3 above for a particular subject, decisions about their entry into Level 2 or Level 3 course may be reviewed by the Head of Department at re-enrolment.



Qualifications Offered at Rosehill College

The National Certificate of Educational Achievement – NCEA

NCEA Levels 1 – 3

For a student to be awarded NCEA Level 1 they must achieve 80 credits. Of these, ten credits must be in literacy standards and ten credits in numeracy standards.

For a student to be awarded NCEA Level 2 they must achieve:

- 60 credits at level 2 or above; plus
- 20 credits at any level, even if gained for another National Qualification.

There are no literacy or numeracy requirements for this qualification

For a student to be awarded NCEA Level 3, they must achieve:

- 60 credits at level 3 or above; plus
- 20 credits at level 2 or above, even if gained for another National Qualification.

Achievement Standards

In many subjects, student achievement is assessed through **Achievement Standards**, which identify the national standards students must achieve. Some are internally assessed by subject teachers during the year and others are assessed by external examination at the end of the year. There are four possible grades students can be awarded: Not Achieved, Achieved, Merit or Excellence. Each Achievement Standard is typically worth about 3 – 5 credits and there are approximately 24 credits per subject.

Unit Standards

Some subjects offer **Unit Standards**. The two possible grades students can be awarded are either Not Achieved or Achieved. Like Achievement Standards, Unit Standards have a credit value that counts towards the NCEA. Unit Standards are all internally assessed.

NQF/NCEA Results

In January, NZQA issues students who have paid the NCEA entry fee with a Report for each subject. On it is recorded:

- The Achievement Standards and/or Unit Standards the student entered
- The credit value of each
- Whether they are internally or externally assessed
- The grade achieved
- The number of credits gained in each standard

If **50 credits at Excellence** are gained, the NCEA will be endorsed with **Excellence**. Likewise, if **50 credits at Merit (or Merit and Excellence)** are gained, the NCEA will be endorsed with **Merit**.

14 credits at Excellence can gain a subject endorsement with **Excellence**. Likewise, **14 credits at Merit (or Merit and Excellence)** can gain a subject endorsement with **Merit**.

If students do not achieve internal assessments for unit or achievement standards, this will be reported on their annual Result Notices, ie **Not Achieved**.

NCEA Entry Fees

NZQA publishes the entry fee early each year. In 2011 it is \$76.70. This is payable to Rosehill College by the end of August each year. It may be paid by AP but must be paid in full by the due date.



Financial assistance

To be eligible for financial assistance the person applying (normally the parent or guardian of the candidate but may be the candidate themselves if they are a beneficiary) must be the fee payer and meet at least ONE of the following criteria:

- For a **benefit-based application** the fee payer must be receiving a Work and Income (WINZ) or Study Link benefit, or have a Community Services Card.
- For an **income-based application** fee payer must be eligible for a Community Services Card (but do not currently have one).
- For a **multiple candidate application** fee payer must have two or more children (2) taking these qualifications in the same year, regardless of income.

Application forms are available from the Student Office.

Note that financial assistance is **not** available to foreign fee paying candidates.

Record of Achievement

As well as issuing a Report for each subject and any certificates achieved, NZQA also provides students with a Record of Achievement. It lists all standards achieved, along with levels, credits and dates, as well as certificates gained. It also lists any Scholarships gained by a candidate.

Scholarship

Some Level 3 subjects have a scholarship standard which students can enter. These subjects are indicated by ^ on page 5. To enter scholarship, students use the Level 3 subject content but are expected to synthesise and integrate concepts. Hence, the standard of achievement expected for Scholarship is very demanding. All scholarship standards are externally assessed. Scholarship does not attract credits or contribute towards a qualification. It is purely a monetary award designed to recognise the very top students in the country. The 2011 monetary awards were:
Premier Awards: \$10,000 a year for three years for the top 5 – 10 students
Outstanding Scholar Award: \$5,000 a year for three years awarded to 40 - 60 students
Scholarship Award in 3 subjects: \$2,000 a year for three years
Top Scholar in each Scholarship subject: \$2,000 a year for three years
Single Subject Scholarship: a one off payment of \$500.00 per subject for candidates who get 1 or 2 Scholarship subjects

Where a candidate meets the criteria for more than one award, he or she will receive only the award of the highest monetary value in most circumstances.

Other National Certificate Qualifications

In addition to the NCEA, there are a wide variety of other National Certificates students can achieve at Levels 1, 2 and 3. At Rosehill College, it is possible for students to gain credits towards a number of these. **They are described in the following boxes:**

The National Certificate in Building, Construction, and Allied Trade Skills Level 2

To achieve this qualification, Year 12 & 13 students must study the following **two** full-year courses, which are assessed by unit standards:

12TSA – Trade Skills A

12TSB – Trade Skills B

The National Certificate in Business Administration and Computing Level 2

To achieve this qualification, Year 12 & 13 students must study the **three** following full-year courses, which are assessed by unit standards:

12FAD – Financial Administration

12BCM – Business Communications

12TIM – Text and Information Management



The National Certificate in Tourism (Introductory Skills) Level 2

To achieve this qualification, eligible Year 12 & 13 students must study the **two** following full-year courses, which are assessed by unit standards:

12TOA – Tourism A

12TOB – Tourism B

The National Certificate in Mathematics Level 1

To achieve this qualification a minimum of 40 credits at Level 1 or above is required. A minimum of 30 credits is required from unit and/or achievement standards in mathematics and Statistics and Probability. Students must study **Mathematics** courses to gain the required credits.

The National Certificate in Mathematics Level 2

To achieve this qualification a minimum of 40 credits at Level 2 or above is required. A minimum of 30 credits is required from unit and/or achievement standards in mathematics and Statistics and Probability. Students must study **Mathematics** courses to gain the required credits.

NZIM Certificate in Management

The NZ Institute in Management is an organisation which promotes education in management and business related areas.

The Aims of the Certificate

The Certificate in Management provides participants with:

- knowledge and skills in personal, workplace and enterprise management
- practical experience in using their learning in simulated and real enterprise settings
- the ability and confidence to transfer their learning into their future lives.

Links to NCEA

The Certificate in Management is an introductory level certificate taught through secondary schools. The NZIM Certificate in Management has been granted credit inclusion of 10 credit equivalents per paper, for the National Certificate of Educational Achievement at Level 2 and Level 3 up to a maximum of 80 credits. If the full eight courses are not completed at school, the student may complete the Certificate at a polytechnic or private training establishment.

Course Description:

The Certificate in Management is an eight paper programme comprising four compulsory courses (List A) and four further courses chosen from 12 optional papers (List B).

Papers offered at Rosehill College:

List A papers:

802 Introduction to Marketing	(13 Business)
805 Introduction to Management	(13 business)
812 Workplace Communication	(12 Business Studies)
836 Enterprise Research Project	(through participation in the Young Enterprise Scheme)

List B papers: These can be achieved by cross credits from specific NCEA papers;

806 Applied Economics	(12 Economics)
808 Introduction to Accounting	(12 Accounting)
811 Introduction to Computing	(12 Business)
814 Business Statistics	

More information on these papers can be found in the Business Education section under 12 and 13 Business Studies



Extramural University Study

Year 13 students may enrol extramurally in one university paper through Massey University. The student must have an entrance qualification. Applications for Provisional Entrance must be made by December 15th. The school must endorse a student's application.



University Entrance

Here is the **minimum** you need to achieve in NCEA to qualify for University Entrance

Level 3 (or above) 42 credits	Approved subject A (14 credits)	Approved subject B (14 credits)	No more than 2 domains or approved subjects (14 credits)
Level 2 (or above) 8 credits	Approved reading (4 credits)	Approved writing (4 credits)	
Level 1 (or above) 14 credits	Maths (14 credits)		

The 14 credits at Level 3 in both Subject A and Subject B **must** be in **approved subjects** – see the list of approved subjects taught at Rosehill College. The final 14 credits at Level 3 can be from no more than two additional domains on the National Qualifications Framework **or** two approved subjects.

The 8 credits at Level 2 Reading and Writing need to be from the NZQA approved list of Standards – see the **literacy list** below for requirements.

University Entrance represents the minimum entrance to University and does not guarantee you a place. Some courses are limited entry and have additional requirements – make sure you find out what these are!

Approved Subjects taught at Rosehill College

Accounting

Biology

Chemistry

Classical Studies

Computer Technology

Dance

Design (Practical Art)

Drama

Economics

English

French

Geography

German

Graphics

History

History of Art

Mathematics with Calculus

Statistics and Modelling

Media Studies

Music

Painting (Practical Art)

Photography (Practical Art)

Physical Education (PED and PEO)

Physics

Printmaking (Practical Art)

Science

Spanish

Sculpture (Practical Art)

Te Reo Maori

The NZIM Certificate in Management and Certificate in Small Business can fulfil UE requirements under the third set of 14 credits. **However**, it is important to note that the University of Auckland, due to restricted entry, **will not accept** students with these credits. Students using these credits for entry to other universities need to apply for 'ad eundem status' and need to see Mrs McConchie as soon as possible.

Literacy List

The English standards (plus number of credits) fulfilling the literacy requirements are:

Reading: 90721 (3), 90722 (3), 90723 (3), 90724 (3), 90726 (4), 90377 (3), 90378 (3), 90379 (3), 90380 (3), 90381 (3), 8834 (6), 8823 (4), 12427 (4), 12428 (4), 12430 (3), 12429 (3), 12905 (4), 12419 (4), 12420 (4), 12421 (3), 12422 (3)

Writing: 90720 (4), 90721 (3), 90722 (3), 90723 (3), 90726 (4), 90375 (3), 90376 (3), 90377 (3), 90378 (3), 90379 (3), 90381 (3), 8841 (6), 8842 (6), 8835 (6), 8825 (5)



University Courses with Limited Entry

Applicants for Limited Entry courses need to achieve the Common Entry Standard stated above **plus** additional requirements specified for the course. The **University of Auckland** has a separate list of subjects – ‘Table A and Table B’ – see below. All are Approved subjects. If you are thinking of attending the University of Auckland it is essential that you check the degree requirements and make sure you take the appropriate subjects from Table A and Table B. The Universities of Auckland, Massey, Otago and Victoria rank students for entry on their 80 best credits in **APPROVED SUBJECTS ONLY**. The rank score will be calculated by awarding four points for Excellence, three for Merit and two for Achieved for up to 24 credits in each approved subject taken at Level 3 in the last two years. The maximum available score is 320. University of Auckland prospectus are available in the Careers Room or online at www.auckland.ac.nz

International Students:

International students applying to The University of Auckland on the basis of NCEA will need to gain the University Entrance Standard and will also be ranked according to their best 80 credits at NCEA Level 3, from up to five subjects on the approved NZQA list. **International students will be required to achieve a higher rank score than domestic students.**

TABLE A	TABLE B
Classical Studies	Accounting
English	Biology
Geography	Chemistry
History	Economics
History of Art	Mathematics with Calculus
Te Reo Maori OR	Physics
Te Reo Rangatira	Statistics and Modelling

Subject Requirements and Recommendations for Careers

FOR COURSES AT THE UNIVERSITY OF AUCKLAND CHECK TABLE A AND TABLE B ABOVE FOR SUBJECTS.

Students planning on attending University are strongly advised to choose a course that enables them to study five approved subjects in Year 13. They need to think ahead and check on the curriculum map to ensure they are making the right choices.

This is a guide for recommended subjects only. Each Tertiary Provider will have different entry criteria so you need to check carefully. For careers not on this list or for more specific details, visit the Careers Room or look on <http://www.careers.govt.nz/> or at individual Institute’s websites.

University of Auckland: www.auckland.ac.nz

AUT University: www.aut.ac.nz

Waikato University: www.waikato.ac.nz

Massey University: www.massey.ac.nz

Victoria University of Wellington: www.vuw.ac.nz

Canterbury University: www.canterbury.ac.nz

Lincoln University: www.lincoln.ac.nz

Otago University: www.otago.ac.nz

Manukau Institute of Technology: www.manukau.ac.nz

Unitec: www.unitec.ac.nz

If you are considering studying at an overseas University, ensure that you know what subjects are required to meet their entrance qualifications. A good starting point is <http://www.braintrack.com>



Career/Course	Background Subjects Required
Accountancy	See Business/Commerce
Advertising	See Business/Commerce or Communications
Agriculture/ Horticulture	<p>Degree available at Massey, Lincoln: A good Science background recommended – At least one of L3 Biology, Chemistry, Physics, Mathematics, Science. English also useful. Common University Entrance standard required.</p> <p>MIT offers a range of courses that are open entry and lead to further study at Diploma level.</p>
Applied Science Degree	<p>AUT University offers majors in Analytics, Astronomy, Applied Maths, Applied Chemistry, Applied Microbiology, Aquaculture, Computer Science, Food Science, Health Protection, Environmental Studies. Common University Entrance. Preferred subjects at Level 3 are Biology, Chemistry, Statistics and Modelling, Calculus or Geography. Entry to university does not guarantee admission to a specific programme of study. AUT also offers a pre degree Certificate in Applied Science which leads to degree level study at AUT. Need completion of Year 12.</p> <p>Otago University offers majors in Applied Geology, Aquaculture and Fisheries, Computational Modelling, Design for Technology, Electronics, Energy Management, Environmental Management, Food Innovation, GIS, Molecular Biotechnology, Software Engineering, Sport and Exercise Nutrition, Telecommunications. Useful subjects (depending on chosen major) include Level 3 Statistics and Modelling, Biology, Physics, Chemistry and Maths with calculus. Common University Entrance. Check prospectus.</p> <p>Unitec offers majors in Biodiversity Management and Animal Management and Welfare. UE required.</p>
Apprenticeships	<p>Many trades require completion of pre-trade or foundation courses at Polytechnics. Applicants should have achieved in at least three NCEA Level 1 subjects. English, Mathematics and Science are recommended. Check for individual trade requirements. www.modern-apprenticeships.govt.nz</p>
Architecture	<p>A broad-based course of study in senior school. Mathematics (Calculus), Physics, English useful. Level 3 Painting, Design or Graphics advantageous, as a portfolio of Artwork can be required.</p> <p>Degree at University of Auckland: UE required plus a minimum of 16 credits in one subject from Classical Studies, English, Geography, History, History of Art, Te Reo Maori and a minimum of 16 credits in one subject from Accounting, Biology, Chemistry, Economics, Statistics and Modelling, Maths with Calculus or Physics. Portfolio required and maybe an interview. Limited entry-students are ranked on their best 80 credits in NCEA Level 3 approved subjects. Degree at Unitec UE required.</p> <p>Degree at Victoria: Common University Entrance Standard required plus at least 14 Level 3 credits in two of Maths with</p>



Calculus, Statistics and Modelling or Physics. Recommended subjects are some of Maths, Physics, English, Art Design, Art, Graphics. No portfolio needed. Limited entry-students are ranked on their best 80 credits in NCEA Level 3 approved subjects. Selection into second year is based on academic performance in first year. **Unitec** also offers the National Diploma in Architectural Technology which requires 35 L2 credits in three subjects.

Armed Forces

Officers: At least Common University Entrance Standard required.

Pilot: At least 18 Level 2 credits in English, Maths and a Science subject, preferably Physics. Check <http://www.stepup.mil.nz/jobs-in-the-rnzaf/browse-jobs/aircrew/pilot/default.htm> for further requirements.

Apprenticeships and Combat Trades: Entry varies depending on trade – essential to check websites careers sections for specific entry details. NCEA Level 1 achievement in English, Mathematics and Science minimum required. Websites: www.army.mil.nz or www.navy.mil.nz or www.airforce.mil.nz

Art and Design Courses

Degree: Common University Entrance Standard required plus portfolio and interview. Check for details. **Degree at University of Auckland** – students are ranked on their best 80 credits in NCEA Level 3 approved subjects plus portfolio and interview. **AUT University** offers majors in Digital, Fashion, Graphic, Spatial and Product Design as well as Textiles for Fashion. Requires minimum of UE, portfolio and interview. Aim for high grades. AUT also offers a Certificate in Art and Design Intermediate which can prepare students for degree level study at AUT. Applicants need 48 Level 2 credits including 8 Level 1 credits in language rich subjects. **Massey University:** selected entry based on academic record and portfolio. Majors in Fashion, Fashion Design and Business, Industrial, Photographic, Spatial, Textile, Visual Communication Design. Offered in Wellington. **Unitec:** Offers majors in Contemporary Craft, Graphic Design, Animation, Interior Design, Photography, Product Design, Furniture Design and Fine Arts. Need UE. Also offer Certificates requiring 4 years secondary education and 12 credits in at least 2 subjects at L1. The Diplomas require UE. **MIT** offers Certificate and Diploma level courses in Digital Design, Photography and Jewellery. **Diploma / Certificates** in general require Level 2 Art, Design, Graphics all useful. Definite need for some art subjects at school. Check individual course requirements.

Automotive (Mechanic)

MIT: pre apprenticeship course requires 3 years secondary education or Apprenticeship see www.modern-apprenticeships.govt.nz. Unitec also offers courses in Auckland.

Aviation

Massey University offers a Degree in Aviation - Level 3 Mathematics with Calculus, Physics and English recommended. Also aptitude test, simulator assessment, selection interview, writing tasks - which include English, Mathematics, Physics & Navigation assessments, Medical Certificate.

Beauty Therapy

Variety of training providers. **MIT** requires 52 Level 2 credits in 4 subjects. English and Biology useful.



Biomedical Science	Biology, Chemistry, Maths with Calculus, Statistics and Modelling and Physics are useful. Common University Entrance. University of Auckland very competitive – ranked on 80 best credits in approved subjects – currently 239 rank score. Victoria University- ranked on 80 best credits in approved subjects. Biology, Chemistry, Maths with Calculus, Statistics and Modelling are recommended. Specialisations in Human Genetics, Molecular Pathology and Molecular Pharmacology and Medicinal Chemistry.
Broadcasting - see Communications as well.	Degree at CPIT (Christchurch): UE plus audition and interview. Check www.careers.govt.nz for other providers at Diploma and certificate level. Need a clear speaking voice.
Building/Carpentry	NCEA Level 1 English, Mathematics, IWP and Graphics are useful or Apprenticeship see www.modern-apprenticeships.govt.nz .
Building Science degree	Victoria: Useful subjects are L3 Maths with Calculus, Physics, English, Technology and one subject from a creative area such as Art, Design or Graphics are recommended. Can do introductory courses if no Maths, Physics at Level 3. No portfolio required. Entry into second year is based on academic performance in first year. Ranked on 80 best credits in approved subjects. Unitec: Construction Management Degree University Entrance plus 12 credits in L2 Maths. Massey: At least one Maths or Science studies to L3 recommended otherwise summer school necessary.
Business/Commerce (Accountancy, Economics, Management, Marketing, Tourism)	Majors depend on which University you attend – check prospectus'. Degree: a broad range of subjects recommended but especially Statistics and Modelling. University of Auckland: Common University Entrance Standard required plus a minimum of 16 credits in each of three subjects from Classical Studies, English, Geography, History, History of Art, Te Reo Maori, Accounting, Biology, Chemistry, Economics, Statistics and Modelling, Maths with Calculus or Physics. Limited entry-students are ranked on their best 80 credits in NCEA Level 3 approved subjects – currently rank score of 165. AUT University requires the minimum criteria for university entrance but preference will be given to those with the highest levels of achievement. Entrance to University does not guarantee admission to a specific programme of study. AUT also offers a pre degree level study at AUT. MIT requires 56 credits at Level 3. Waikato: Common University Entrance plus 14 L3 credits in English or Maori or History (incl AS90658) or Classics (incl AS90513) and Maths with Calculus or Statistics and Modelling recommended. See prospectus' for other providers. Diploma: MIT requires 50 credits at Level 2 in 3 subjects including Level 2 Literacy credits.
Childcare (Nanny)	Level 2 in general subjects including English. Training providers have varying entry requirements. MIT Certificate in Early Childhood requires strong motivation to work with young children and Police clearance. Must be 17 by end of programme. NOTE: Kindergarten/Early Childhood teachers require University Entrance. See Teaching.
Communications	AUT Competitive entry. Majors in Advertising Creativity, Creative Industries, Digital Media, Journalism, Public relations, Professional



Communications, Radio and Television. University Entrance – preference to those with a minimum of 60 NCEA Level 3 credits over four subjects (with at least three subjects from the approved list) including a minimum of 18 NCEA Level 3 credits, preferably including some MERITS or EXCELLENCES in any one of English, History, Geography, Classical Studies, History of Art or Media Studies. AUT also offers a pathway Certificate in Communication Studies for students who do not meet the required standard for the degree. Students need at least 48 NCEA Level 2 credits plus 8 Level 1 credits in language rich subjects. Language rich subjects include English, History, Geography, Classical Studies, History of Art or Media Studies, Economics, Te Reo, Physical Education, Drama, Social Studies. **Waikato University:** Majors – Management Communication, Marketing Communication and Public Relations. **Massey University:** Majors in Communication Management, Journalism, Marketing Communication, Public Relations, Expressive Arts, Linguistics and Media Studies. Students are ranked on their 80 best credits in NCEA Level 3 approved subjects. **MIT** offers a range of programmes from certificate to degree level. The Diploma requires at least 64 L2 credits with at least one language rich subject. The Degree requires UE. **Unitec** offers majors in Event Management, International Communications, Media Studies and Public Relations Require UE. They also offer a Certificate in Communications and Media Studies

Computer Programmer

MIT asks for at least 56 credits at Level 3 in approved subjects. **University of Auckland** students are ranked on their best 80 credits in NCEA Level 3 approved subjects. Mathematics, English, Computer Technology useful. **AUT University** – Common University Entrance plus at least 14 credits in Level 2 Maths.

Dance

AUT University requires UE, audition, interview and Police clearance. **University of Auckland** requires UE (ranked on 80 best credits), CV, interview, audition. **Unitec** requires UE and audition. Also Certificate available through **Excel School of Performing Arts** – audition required but no minimum academic requirements, although formal qualifications are advantageous.

Dentistry

See Health Sciences.

Dental Technology

University of Otago: Chemistry, Biology, Physics, one Maths subject, an English rich subject plus Art can be useful. Common University Entrance.

Design

See Art and Design

**Dietitian/Dietetics/
Human Nutrition**

To become a Dietitian you need a Bachelor of Science (BSc) or a Bachelor of Consumer and Applied Sciences, majoring in Human Nutrition and Food Service Management. You also need to have a Postgraduate Diploma in Dietetics.

Otago University: Common University Entrance with Chemistry and Biology, Statistics and Modelling useful.

**Draughting
Architectural
Technology**

Unitec offers the National Diploma in Architectural Technology which requires 35 L2 credits in three subjects.

Engineering

Wide range of courses available - **essential** to check



(Chemical, Civil,
Electrical,
Electronics,
Computer Systems,
Mechanical,
Environmental)

prospectuses. **Degree: University of Auckland** requires Common Entrance Standard and 18 credits at least in Maths with Calculus **and** Physics. Limited entry-students are ranked on their best 80 credits in NCEA Level 3 approved subjects – currently rank score of 240. Majors in Biomedical, Chemical and Materials, Civil and Environmental, Computer Systems, Electrical and Electronic, Engineering Science, Mechanical, Mechatronics, Software Engineering. **Waikato** majors in Chemical and Biological, Electronics, Materials and Processes, Mechanical and Software Engineering. Requires Level 3 credits in Physics (not for Software Engineering) and either Maths. Chemistry also required for Biochemical Engineering, Materials and Process Engineering and Mechanical Engineering. Common University Entrance the minimum-selection applies. **AUT University:** Electrical and Electronic, Biotronic and Mechanical. Need 14 credits at Level 3 in Maths with Calculus, 14 credits Level 3 in Physics and 14 credits at Level 3 from one of Accounting, Biology, Chemistry, Computing, Economics, English, Geography, Graphics, History, Science, Statistics and Modelling. AUT also offers the Certificate in Science and Technology which prepares you for study at degree level at the School of Engineering. Entry is 48 Level 2 credits plus 8 Level 1 credits in language rich subjects. Language rich subjects include English, History, Geography, classical Studies, History of Art or Media Studies, Economics, Te Reo, Physical Education, Drama, Social Studies. **Massey University** - 16 credits or more at NCEA Level 3 in each of Physics and Mathematics with Calculus, and, in addition, for the majors of Biotechnology, Chemical and Nanotechnology, Environmental Technology and Sustainable Energy, and Food Technology, 14 credits in Chemistry at NCEA Level 3. Also available at Canterbury University – majors in: Chemical and Process, Civil, Computer, Electrical and Electronic, Forest, Mechanical, Mechatronics, Natural Resources. **Victoria:** Offers majors in Electronics and Computer Systems, Network and Software. Maths with Statistics or Calculus, Physics recommended otherwise bridging course needed. Ranked on 80 best credits in Approved subjects and entry to Year 2 competitive. **Canterbury** requires L3 Maths with Calculus, Physics and Chemistry. **Unitec** requires 50 Level 3 credits for the Degree. Check for other institutes requirements. **Diploma: Unitec** requires a total of 48 credits in your best 4 subjects at Level 2, including Maths, Graphics and a Science subject. **AUT** asks for 14 credits at Level 2 in each of Maths, Physics and English. **MIT** requires Level 2 Maths and Physics plus Level 1 literacy. 48 credits at L2. MIT also offers a pre degree Engineering course designed to lead towards study at other Institutions. Need completion of Y13, L2 Literacy, L2 Maths and Physics. **Certificate:** Minimum 3 years secondary education. Credits in Level 1 English, Science and Mathematics preferred.

Engineering
Technology

AUT University: Bachelor of Engineering Technology Majors in Computer and Mobile Systems, Electrical, Electronics, Network and Communications, Mechanical. Requires UE plus 14 credits at Level 3 in Maths with Calculus OR Statistics and Modelling, 14 credits Level 2 in Physics and 14 credits at Level 3 from one of Accounting, Biology, Chemistry, Computing, Economics, English,



Geography, Graphics, History, Science, Statistics and Modelling.
MIT Bachelor of Engineering Technology. Major in Electrical.
Require UE.

Electrician	NCEA Level 1 English, Mathematics, Science, minimum. Some providers require more.
Environmental Planning	Waikato offers specialisations in Coastal and Marine, Freshwater and Terrestrial. UE needed.
Environmental Studies	Degree: minimum University Entrance requirements – Geography, Biology, Statistics and Modelling are useful subjects. See also Engineering, Applied Science and Science.
Event Management	Available as a major in AUT University's BA Degree and Bachelor of International Hospitality Management. – Common University Entrance plus interview. Also available as a major in Unitec's Communication Degree.
Fashion Design	Degree AUT - Common University Entrance plus portfolio and interview. Art Design useful. Massey University ranked on 80 best credits in approved subjects. Portfolio.
Fine Arts	See Art and Design
Fitness Industry/Sport	Degree courses generally require minimum University Entrance. Auckland - entry to Sport and Exercise Science is competitive ranked on 80 best credits – current rank score of 190. PE at Otago very competitive - Level 3 Physical Education, Biology and Statistics and Modelling recommended. Must be studying five Level 3 approved subjects. Applicants are initially selected on their Year 12 NCEA results – aim for at least 80 Level 2 credits with a minimum of 16 credits in each of the top four subjects. AUT University: Requires UE including 14 credits at L3 in at least one subject from Health Education, Physical Education, Maths or Sciences and 14 Level 2 credits in English. MIT has an open entry Certificate course and a Diploma course requiring 42 L3 credits plus Level 2 Literacy. Unitec offers a Diploma in Sport and Fitness Education which requires 60 credits in your best L2 subjects. They also offer a Bachelor in Sport majoring in Coaching, Management and Physical Education. UE required.
Floristry	MIT offers an open entry Floristry course that leads on to a National Certificate.
Food Industry/Chef	NCEA Level 1 English, Mathematics, Science, Food Technology. 4 years secondary preferred. Variety of courses and providers. AUT University offers Diplomas in Culinary Arts and Patisserie which require 48 Level 2 credits with at least 8 credits in one of English, History, Geography, Classical Studies, History of Art, Media Studies, Economics, Physical Education, Drama or Social Studies. Their Certificate in Practical Patisserie requires completion of Year 12 and an interview. MIT offers open entry Certificate courses that lead to a Diploma.
Food Technology/Science	Degree: Level 3 Statistics and Modelling, Chemistry, Biology and English. At least minimum University Entrance required. AUT University Common University Entrance – preferred subjects at



L3 Biology, Chemistry, Statistics and Modelling, Calculus or Geography. AUT also offers a pre degree Certificate in Applied Science which leads to degree level study at AUT. Need completion of Year 12. **University of Auckland** ranks on 80 best credits in approved subjects. Chemistry, Biology, Physics useful. **Lincoln University:** Offers Commerce Degree in Food Industry. **Otago University** Chemistry, Physics, Biology, Statistics and Modelling. **Massey University** - 16 credits or more at NCEA Level 3 in each of Physics and Mathematics with Calculus, and, in addition, for the majors of Biotechnology, Chemical and Nanotechnology, Environmental Technology and Sustainable Energy, and Food Technology, 14 credits in Chemistry at NCEA Level 3.

Forestry	Degree: Canterbury: Level 3 Chemistry, Biology, Statistics and Modelling are extremely useful. Year 13 Economics and English are recommended. Minimum University Entrance requirements at least. Massey (major in Applied Science degree) Common University Entrance. A good Science background is very useful. Ranked on 80 best credits in Approved subjects.
Furniture Making	Year 12 preferably. Useful subjects: Maths, Trade Skills
Graphic Design	See Art and Design .
Hairdressing	Year 11 required. English, Mathematics, Science, Art useful. Either course at Polytech or Apprenticeship.
Health Sciences First Year course – entry into Medicine, Pharmacy, Dentistry, Physiotherapy or Medical Laboratory Technology	Intermediate Year at Otago University: Chemistry, Biology, Physics plus two other subjects. All students are advised to include a Humanities subject (eg English, Classics, History). English is compulsory in the first year. Statistics and Modelling is useful as well. Health Science degree at Auckland University: Common University Entrance Standard required plus need minimum of 18 credits in one of Classical Studies, English, Geography, History, History of Art or Te Reo Maori plus 18 credits from one of Biology, Chemistry, Maths with Calculus, Statistics and Modelling. Ranked on 80 best credits in Level 3 approved subjects. Biomed rank score currently 239, B Health Science currently 210.
Hospitality	Degree: Common University Entrance Standard required. No specific subjects but English, Mathematics, Economics, Accounting useful. Like previous experience in Hospitality industry. Perhaps interview. AUT University offers Bachelor of International Hospitality Management with majors in Accommodation, Event Management, Food and Beverage, Human Resources, Marketing, Tourism. Diploma: Minimum of 48 credits at Level 2, including 8 Level 2 credits in a language rich subject, Language rich subjects include English, History, Geography, Classical Studies, History of Art or Media Studies, Economics, Te Reo, Physical Education, Drama, Social Studies.
Hotel Management	Degree: Common University Entrance Standard required.
Human Nutrition	Common University Entrance including Chemistry, Biology and



one Maths.

Interior Design

See **Art and Design**.

Journalism

Degree: Common University Entrance Standard required as a minimum. Depends on course and institution. See also Communication Studies and Broadcasting. Need strength in English.

Law

Broad education at Yr 13, especially essay based subjects such as English, History, History of Art, Classics, Economics and Geography. **University of Auckland** – students are ranked on their best 80 credits in NCEA Level 3 approved subjects. Students must be offered a place in another Bachelors degree. Entry will be based on the guaranteed scores for the other Bachelors degree. **AUT University** requires UE with at least 60 Level 3 credits in 4 subjects, including at least 3 from the approved subject list. This should include a minimum of 18 credits at merit level or above in any one of Classical Studies, English, Geography, History, History of Art, Te Reo Maori, Te Reo Rangatira. **Waikato** requires Common University Entrance as a minimum but there will be a selection process. Aim for high grades! **Canterbury and Otago** UE into the first year. Entry into Year 2 is limited and very competitive. **Victoria** – students are ranked on 80 best credits in approved subjects.

Landscape Management

Massey: A good Science background is very useful – first year papers include Chemistry, Physics and Biology. Common University Entrance required.

Landscape Design / Architecture

Lincoln University – UE **Unitec** Degree – UE; **Diploma:** At least 48 four subjects at level 2 including at least a minimum of 12 NCEA credits in English at level 1.

Medical Laboratory Technology

Otago: see Health Sciences
AUT University: Common University Entrance Standard required plus 14 credits at Level 3 in Biology, Chemistry and Statistics and Modelling. **Massey:** Chemistry, Biology and Maths to Level 3 – at least 14 credits in Level 3 Chemistry (and must have studied 20).

Medical Radiation Therapy/Medical Imaging

Unitec: Medical Imaging: Minimum of 42 credits at Level 3 or higher (Common University Entrance), including a minimum of 14 credits at Level 3 in English, Maths and one Science.
Otago: Medical Radiation Therapy: Level 3 with one of History, Classics or English and either Statistics and Modelling or Maths with Calculus plus either Physics or Biology. Ranked on 80 best credits.

Medicine

University of Auckland: Need to apply for year 1 of either the Bachelor of Health Science or BSc in Biomedical Sciences. UE plus need a minimum of 18 credits in **one** of Classical Studies, English, Geography, History, History of Art or Te Reo Maori **plus** a minimum of 18 credits in one of Biology, Chemistry, Accounting, Economics, Maths with Calculus, Statistics and Modelling, Physics. Biology and Chemistry recommended. Physics is useful. Ranked on 80 best credits in NCEA Level 3. Biomed Science rank score currently 239. **Otago:** see Health Sciences.



Midwifery	AUT University requires minimum of 14 credits at Level 3 or higher in Biology or Chemistry; 14 credits in Level 3 or higher in an English-language rich subject; a further 14 credits at Level 3 or higher in 2 additional subjects or domains in the National Qualifications Framework. Language rich subjects include English, History, Geography, Classical Studies, History of Art or Media Studies, Economics, Te Reo, Physical Education, Drama, Social Studies.
Music	Degree: Common University Entrance Standard required plus level 3 Music required. Audition required for Performance Courses. University of Auckland students are ranked on their best 80 credits in NCEA Level 3 approved subjects. Performance majors, Jazz, Performance and Popular Music require audition. Waikato: UE plus 14 credits L3 Music or 20 credits L2 Music. At least Grade 5 theory pass. Performance strands of Chamber, Performance, Performance Techniques and Western Music History require audition. Victoria (NZ School of Music) music required (about grade 5 theory). Classical Performance and Jazz must audition. Composition also available. Otago Iniversity: Majors in Musical Scholarship, Classical Performance, Contemporary Rock Performance, Composition and Song Writing, Music Technology, Popular Music and World Music. Auditions for Performance Music.
Nautical Science and Seamanship	MIT offers a Certificate in Seamanship which requires at least 40 L2 credits. They also offer the Diploma in Nautical Science and the Diploma in Marine Engineering which require 48 L2 credits including 8 L2 English credits and 14 L2 credits in Maths and/or Physics. All require an eyesight and medical assessment.
Nursing	A variety of Institutions offer Nursing. Common University Entrance Standard required plus University of Auckland requires a minimum of 16 credits in one of Classical Studies, English, Geography, History, History of Art plus minimum of 16 credits in one of Biology, Chemistry and Physics. Limited entry-students are ranked on their best 80 credits in NCEA Level 3 approved subjects – current rank score of 200. AUT University Common University Entrance including for 14 Level 3 credits in one Maths, or Science subject; 14 Level 2 credits in English: 14 Level 3 credits in a language-rich subject. Language-rich subjects include English, History, Geography, Classical Studies, History of Art or Media Studies, Economics, Te Reo, Physical Education, Drama, Social Studies. MIT Common University Entrance plus a minimum of 12 Level 2 (or higher) credits in one of Biology, Chemistry and Physics. They also offer a pre degree nursing course.
Occupational Therapy	AUT University requires Common University Entrance Standard. Generally students with the highest level of academic achievement are selected. Minimum of 56 Level 3 credits in 3 approved subjects. Otago Polytech: requires Common University Entrance Standard
Office Administration	Variety of courses and entry levels. Minimum is 12 credits NCEA English Level 1. Preferably Year 12.



Optometry	No direct entry from School. Students need to complete a first year in Science, consisting of Biology, Chemistry, Calculus, Statistics and Physics. These are recommended for Level 3.
Oral Health	AUT University Prepares students to be dental therapists and dental hygienists. Dental hygienists treat gum disease and help people to maintain good oral and general health. Dental therapists independently prescribe and administer oral health care to patients up to 18 years old, and provide periodontal care for adult patients, in consultation with a dentist. Need minimum of UE.
Osteopathy	Unitec: Degree. At least 60 credits at level 3, including at least 18 credits in Chemistry and a minimum of 12 level 3 credits in each of three other subjects, plus at least 14 credits at level 2 in Maths. Enrol in Bachelor of Applied Science (Human Biology) then enrol in Master of Osteopathy.
Paramedic	AUT University requires UE with at least 14 Level 3 credits in one of Chemistry, Biology, Physics or Maths and 14 Level 2 credits in English.
Parks Recreation	Degree: Biology, English, Geography, Economics, Mathematics with Calculus or Statistics and Modelling are useful. Minimum university entry requirements.
Performing/Screen Arts	Degree: Common University Entrance Standard required plus CV, interview and an audition. Diploma: 60 credits in best four subjects at level 2 plus a minimum of 12 credits in English at level 1.
Pharmacy	Degrees: Otago: see Health Sciences University of Auckland: Common University Entrance Standard required plus minimum of 18 credits in each of Chemistry and Biology. Similar subjects as for Medicine. Limited entry-students are ranked on their best 80 credits in NCEA Level 3 – current rank score of 220. All are interviewed.
Photography	Certificate: L2 English plus portfolio of work. Diploma: 54 credits at Level 2 NCEA in best 4 subjects. Degree: Common University Entrance plus portfolio.
Physical Education	Otago: Selection is partly based on Year 12 results but a Year 13 year needs to be completed. Level 3 Physical Education, Biology and Statistics and Modelling are recommended. Chemistry and Physics also useful. Must be studying five Level 3 approved subjects. Applicants are initially selected on their Year 12 NCEA results – aim for at least 80 Level 2 credits with a minimum of 16 credits in each of the top four subjects.
See Sport also	University of Auckland: Common University Entrance, interview and referees' reports plus students are ranked on their best 80 credits in NCEA Level 3 approved subjects. AUT University requires UE including 14 credits at Level 3 in at least one subject from Health Education, Physical Education, Maths or Sciences and 14 Level 2 credits in English.



Diploma courses require 48 Level 2 credits including 8 level 2 credits in a language rich subject.

Physiotherapy	AUT University: 56 credits at Level 3 approved subjects. Preference will be given to candidates who have the highest level of achievement. No specific subjects but Chemistry, Biology, Physics, English useful. Involvement in sports, community service or health related activities required. Police Clearance. Otago: see Health Sciences.
Planning	Degree: Relevant Level 3 subjects include English, Design, Calculus or Statistics and Modelling, Geography, History. University of Auckland will rank students on their best 80 credits in NCEA Level 3 in approved subjects – current rank score 230.
Plumbing	Achievement in three NCEA Level 1 subjects - Technology, Mathematics, English, Science useful.
Podiatry	AUT University UE
Police	Fluent English speaker. Fitness test, must be a capable swimmer. Full Drivers License preferred and need to be 18 before training is complete. Keyboarding skills useful.
Property/Property Management/ Valuation	Degree at University of Auckland – minimum of 16 credits in each of three subjects from Table A and/or Table B (see above). Ranked on 80 best credits in approved subjects. Lincoln University: Offers Degree in Commerce majoring in Valuation and Property Management.
Psychology	Common University Entrance. First year papers are popular so better than 42 credits at Level 3 may be required. Useful subjects – Statistics and Modelling.
Resource Management	A good Science background helpful but not essential. Advantage to have studied social science e.g. Economics, Geography.
Science degrees	Available at all Universities. Useful subjects and entry depends on major chosen. Biology, Chemistry, Modelling and Statistics, Geography, Physics all very useful. Need to check prospectus.
Science and Technology degrees	Both Maths with Calculus and Statistics and Modelling, Physics and Chemistry are useful. University of Auckland requires a rank score of 220. Specialisations in Biotechnology, Information Technology, Medical Physics and Imaging, Optoelectronics.
Secretarial/Reception	Prefer Level 2 English, Text and Information Management.
Shipping, Freight and Logistics	MIT: Certificate in Logistics requires 38 L2 credits. The Diplomas in Shipping and Freight and Supply Chain Management both require 48 L2 credits.
Social Work	Degree: General educational background. Minimum university entry requirements. Useful subjects are English, Classics, History, Geography, Economics, Statistics and Modelling. Interview as well. Police check.



Speech and Language Therapy

Can study at Massey University or Canterbury University. University of Auckland offers a Masters in Speech Language Therapy Practice – need Bachelors degree in a related subject first. Biology to Year 12/13 very useful as is English. **Massey University at Albany:** Common University Entrance including: 14 credits at Level 3 or higher in English and a minimum of 16 credits or more at NCEA Level 3 in one of the following subjects: Biology, Chemistry, Mathematics with Calculus, Physics, Science or Statistic with Modelling, plus interview.

Canterbury: Minimum University Common Entrance requirements but higher recommended. Must do an Intermediate year. L3 Biology and English recommended plus strong Science background to at least L2.

Sport

University of Auckland: Sport and Exercise Science requires a rank score of 190 currently at Level 3 in at least one subject from Health Education, Physical Education, Maths or Sciences and 14 Level 2 credits in English. **Unitec:** Bachelor in Sport majoring in Coaching, Management and Physical Education. UE required.

Waikato: Sport and Leisure Degree with pathways in Event Management/Public Relations, Exercise Physiology/Personal Training, Outdoor Adventure/Tourism, Teaching. Need UE minimum. **Canterbury:** offer Degree in Sport Coaching. Biology, PE, English recommended. **Lincoln University** has Degree in Sport and Recreational Management.

Surveying

Degree (Otago): Common University Entrance Standard required plus Intermediate Year at University. Useful subjects are English, Mathematics with Calculus, Statistics and Modelling, Physics, Geography.

- Quantity

Degree: Common University Entrance. Maths and Physics to Level 3 recommended.

Diploma (Unitec): 36 credits at Level 2 in best three subjects, including Level 2 Maths and Level 2 English literacy credits.

Teaching

Many providers – need to check for individual requirements.

Early Childhood

Common University Entrance, Interview and Police check required.

Primary

Two or more teaching subject required at University for secondary teaching.

Secondary

Technology/Science Technology

University of Auckland: University of Auckland requires a rank score of 220. Specialisations in Biotechnology, Information Technology, Medical Physics and Imaging, Information Technology and Optoelectronics

Waikato: UE Majors in Animal Behaviour, Biochemistry, Biological Sciences, Biotechnology, Chemistry, Computer Science, earth Sciences, Electronics, Environmental Planning, Environmental Sciences, Materials and Processing, Physics.

Tourism and Travel

Variety of providers and courses offered. **Degree:** Common University Entrance. Degree at Waikato requires UE plus 14 credits in one of L3 English, Māori, History (incl AS 90658), Classics (incl AS 90513). **Victoria and Lincoln Universities** offer Degree in Tourism Management. **Certificate AUT:** Completion of Year 12 and must be 17. **Diploma: AUT** 48 Level 2



credits in four subjects, including 8 credits in a language rich subject – English, History, Geography, Classical Studies, History of Art or Media Studies, Economics, Te Reo, Physical Education, Drama, or Social Studies.

Certificate: MIT 48 Level 1 credits including 12 credits of Level 1 English or higher plus 10 L2 Tourism credits **OR** National Certificate in Tourism and Travel Introductory Skills. Level 2. Useful subjects - Maths, Tourism, Geography, Languages.

Diploma at MIT requires 48 L2 credits including 12 credits in each of 3 subjects and L2 Literacy.

Veterinarian

Degree (Massey University) Common University Entrance Standard required plus ranked on 80 best credits. Entry to Semester II is very competitive. Level 3 Chemistry, Physics, Biology and Calculus. English also very useful. Work Experience at Vet recommended.

Vet Nursing Working with Animals

Diploma at Massey: Prior experience with animals useful. NCEA Level 3 (minimum requirement) in Biology, Mathematics and English. Also offer a Degree in Veterinary Technology. **Unitec:** at least 60 credits in best four subjects at level 2 including a minimum of 12 credits in English at level 1. Interview. Competitive entry.

Other courses are available-check for entry requirements. In Auckland Unitec offers several.

Viticulture and Oenology

Lincoln University offers a degree.

If you are considering studying at an overseas university, ensure that you know what subjects are required to meet their entrance qualifications. See Mrs McConchie for advice as to how to access this information.



People to See for Subject Advice

Two very important people whom you can see for advice about your subject selection here at school are your **Head of House** and **Mrs McConchie**, our **Careers Advisor**. She has information on a huge variety of careers and tertiary courses.

If you want to find out more about a **subject**, the following teachers can help you:

Subject	Teacher
Accounting, Business Studies	Mrs Green
Art History and Visual Arts	Mrs Waanders
Biology	Mr Stanning
Chemistry	Ms Poelman
Classical Studies	Mr Spackman
Computing	Mrs Mockridge
Drama	Ms Bolt
Economics	Mrs Green
Employment Skills	Mrs McLeod
English – Year 11	Ms Te’o
English – Year 13	Ms Stuart
English – Year 12	Ms Johnston
ESOL	Ms Aw
Food and Fabric Technology, Hospitality	Ms Matich
Geography	Ms Knight
History	Mr Spackman
Humanities	Mrs McFadden/Ms Wolken
Media Studies	Mr Duff
Languages – French & German	Mrs Pommarède
Languages – Spanish	Mrs Pommarède, Dr Anwar
Music	Ms Banham
Mathematics	Ms Hawkins, Ms Siber
Information Management	Mrs McLeod
Physics, Electronics	Mr Prahaladh
Physical Education	Mr Rennell
Science	Mrs Glading
Technology – Hard Materials, Graphics, Engineering, Trade Skills	Mr Kerr
Te Reo Maori	Ms Tauranga-Hudson
Tourism	Mrs McConchie

Course Fees

Some subjects have course fees to cover the costs of materials used in the course. The fees given in this booklet are the 2011 course fees and are indicative of the fees for 2012. The fees for 2012 will be set at the start of the year and may change from the fees from 2011. Some subjects also have workbooks or manuals, which will appear on the stationery list.

ROSEHILL COLLEGE CURRICULUM MAP 2012

YEAR 9

YEAR 10

YEAR 11

YEAR 12

YEAR 13

YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13
ARTS				
Drama	Drama	Drama	Drama	Drama
Art	Art	Visual Art	Performing Arts Technology	Painting
Design	Design	Photography and Design	Painting	Design
			Art Design	Photography
			Photography	Printmaking
			Printmaking and Sculpture	Sculpture
Dance	Dance	Dance	Art History	Art History
Band	Band	Advanced Music	Dance	Dance
Advanced Music	Advanced Music			
Vocals		Making Music	Making Music and Music Studies	Making Music and Music Studies
Introductory Music	General Music			
BUSINESS EDUCATION	Enterprise Studies	Accounting	Accounting	Accounting
		Economics	Business Studies	Business Studies
		Employment Skills & Keyboarding	Economics	Economics
			Information Management	Information Management
			Business Communications	
			Financial Administration	
			Computer Studies	Computer Technology
			Computer Technology	Computer Literacy for Beginners

ROSEHILL COLLEGE CURRICULUM MAP 2012

YEAR 9

YEAR 10

YEAR 11

YEAR 12

YEAR 13

<p>ENGLISH</p> <p>English</p>	<p>English</p> <p>English Language Studies</p>	<p>Advanced English</p> <p>English</p> <p>Bridging English</p>	<p>Advanced English</p> <p>English</p> <p>Communication English</p>	<p>Scholarship English</p> <p>English</p> <p>Communication English</p>
<p>ENGLISH FOR SPEAKERS OF OTHER LANGUAGES</p> <p>ESOL for Beginners (all ages)</p>	<p>ESOL for Intermediate Speakers (all ages)</p>	<p>English for new students – reception class</p> <p>English for Speakers of Other Languages</p>	<p>English for Speakers of Other Languages – High School Graduation</p> <p>English for NZ University Entrance</p>	<p>English for Speakers of Other Languages – High School Graduation</p> <p>English for NZ University Entrance</p>
<p>HUMANITIES</p> <p>Social Studies</p>	<p>Social Studies</p> <p>TAPs</p>	<p>Social Studies</p> <p>Geography</p> <p>History</p>	<p>Geography</p> <p>History</p> <p>Classical Studies</p> <p>Media Studies</p> <p>Tourism A</p> <p>Tourism B</p>	<p>Geography</p> <p>History</p> <p>Classical Studies</p> <p>Media Studies</p>

ROSEHILL COLLEGE CURRICULUM MAP 2012

YEAR 9

YEAR 10

YEAR 11

YEAR 12

YEAR 13

YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13
LANGUAGES				
French	French	French	French	French
German	German	German		
Spanish	Spanish	Spanish	Spanish	Spanish
Te Reo Maori	Te Reo Maori	Te Reo Maori	Te Reo Maori	Te Reo Maori
MATHEMATICS				
Mathematics	Mathematics	Advanced Mathematics Mathematics Preparatory Mathematics Mathematics Applied	Advanced Mathematics Mathematics Bridging Mathematics Mathematics Applied 2	Statistics and Modelling Maths with Calculus
PHYSICAL EDUCATION & HEALTH Physical Education & Health	Physical Education & Health	Advanced Physical Education Physical Education Health Education	Physical Education - Outdoor Education option Physical Education - Sports Education option Sports Leadership Health Education	Physical Education – Sports Education option Physical Education – Outdoor Education option Sports Leadership

ROSEHILL COLLEGE CURRICULUM MAP 2012

YEAR 9

YEAR 10

YEAR 11

YEAR 12

YEAR 13

SCIENCE Science	Science	NZASE Science General Science Science Advanced Science	Science Biology Chemistry Physics Electronics	Science Biology Chemistry Physics Electronics
TECHNOLOGY Technology	Technology (Hard Materials) Textiles Food Technology Graphics	Technology Introductory Workshop Practice Textiles Food Technology Food and Nutrition Graphics & Design	Technology Precision Engineering Automotive Engineering Trade Skills A Trade Skills B Creative Pattern Making & Design Food Technology Food and Nutrition Hospitality 1 Hospitality 2 Graphics & Design	Precision Engineering Automotive Engineering Hospitality Graphics & Design



The ARTS

	Pages
Performing Arts	
12DAN Dance	32
12DRA Drama	32
12/13PAT Performing Arts Technology	33
13DAN Dance	33
13DRA Drama	33
Music	
12MUS Music	34
13MUS Music	34
Visual Arts	
12ARD Art Design	35
12ARH Art History	35
12PAI Painting	36
12PHO Photography	36
12PSC Printmaking and Sculpture	36
13ARD Design	37
13ARH History of Art	37
13PAI Painting	38
13PHO Photography	38
13PTM Printmaking	38
13SCU Sculpture	38



Performing Arts Course Descriptions

12DAN –Dance

Qualification:

22 credits in NCEA Level 2 Dance achievement standards with an opportunity for advanced students to sit an extra external standard worth 4 credits

Entry Requirement:

15+ credits in Level 1 Dance, including a grade of Achieved or higher in *AS90004: Demonstrate understanding of a dance performance* **or** *AS90002: Perform dance sequences* **and** *AS90859: Demonstrate ensemble skills in dance* **or** HOD approval

Course Content:

In this course, students will actively participate in composing, performing and producing dance sequences and performing as part of a group. Students will learn a range of dance styles and interpret a dance performance with supporting evidence.

- Choreographing a group dance to communicate an intention
- Choreographing a solo dance
- Performing an theatre style dance
- Performing a repertoire of dance
- Interpreting a dance performance
- Demonstrating understanding of a dance style/genre (extension exam)

This Course leads to:

13DAN – for which the entry requirement is 15+ credits in Level 2 Dance, including a grade of Achieved or better in *AS2.6: Interpret a dance performance with supporting evidence*; *AS2.2 Choreograph a solo dance to communicate an intention* and *AS2.5 Perform a repertoire dance*.

12DRA - Drama

Qualification:

22 credits in NCEA Level 2 Drama achievement standards

Entry Requirement:

15+ credits in Level 1 Drama including a grade of achieved or higher in *1.6 90009: Perform an acting role in a scripted production*, **and** *1.7 90011: Demonstrate understanding of the use of drama aspects within live performance* **or** HOD approval.

Course Content:

In this course students are given the opportunity to develop acting skills and to develop independence as a performer and creator. Units of work include:

- Acting Technique- Developing skills of voice, body, movement and use of space to convey a role in a scripted context. Analysis of scripts and annotation techniques will be covered in this unit.
- Class production – Students will develop and perform a character from a scripted work and present this to a live audience for two nights.
- Theatre Studies – Students will study the style of Epic Theatre and will perform one of Bertold Brecht’s plays incorporating the key feature of this style.
- Devised Drama – Students will research contemporary issues in order to create their own devised drama for an invited audience. The selection of elements and conventions will be a major part of this assessment.



- External Examination – This requires students to discuss drama elements, techniques, conventions and technologies within a live performance they have viewed in the year.

Students taking this course need to work as part of a team and be prepared to complete some evening and weekend production work.

This Course leads to: 13DRA - for which the entry requirement is 15 credits in Level 2 Drama, including a grade of Achieved or higher in *AS2.7: Discuss drama elements, techniques, conventions and technologies within a live performance*, *AS2.6: Perform a substantial acting role in a scripted production* and *AS2.2: Devise and perform a drama to realise an intention*.

12/13PAT – Performing Arts Technology

Qualification: 24 credits in NCEA Level 3 unit standards.

Entry Requirement: Students must have successfully completed either Year 10, 11 or 12 Drama. Max. 25 students.

Course Content: This is a full year, practical course. It aims to teach skills in stagecraft, including stage make-up, costume, performance skills and stage lighting. Unit Standards in each area will be the main form of assessment. Students taking this course need to be able to work in a team, and also be prepared to complete some class work after school hours for school productions.

This course leads to: This is a stand alone one year course.

Fee: \$20.00

13DAN - Dance

Qualification: 24 Credits in NCEA Level 3 Dance Achievement Standards with an opportunity for advanced students to sit an extra external standard worth 4 credits.

Entry Requirement: 15+ credits in Level 2 Dance including a Grade of Achieved or higher in *AS2.6: Interpret a dance performance with supporting evidence* *AS2.2: Choreograph a solo dance to communicate an intention* **and** *2.5 Perform a repertoire dance* **or** HOD approval.

Course Content: In this course students will actively participate in composing, performing and producing dance sequences and performing both solo and group pieces. Students will learn about the development of dance in Aotearoa and analyse and evaluate dance performances. Units of work will include:

- Producing a dance for performance
- Performing a solo or duet dance
- Performing a choreographed group dance
- Analysing and evaluating a dance performance
- Discussing features and the development of dance in Aotearoa

13DRA - Drama

Qualification: 24 Credits in NCEA Level 3 Drama Achievement Standards

Entry Requirement: 15+ credits in Level 2 Drama including a grade of achieved or higher in *AS2.7: Discuss drama elements, techniques, conventions and technologies within live performance*, *AS2.6: Perform a substantial acting role in a scripted production* **and** *AS2.2: Devise and perform a drama to realise an intention* **or** HOD approval.



Course Content: This course has a strong practical and theoretical base. Students are expected to develop class work to public performance quality. Class work will include:

- Advanced acting technique based on scripted work. Study of New Zealand and/or world playwrights
- Study and practice of a theatre form with external examination on this theatre form
- Devised drama
- Creation of a major production for public performance
- External examination for two achievement standards

Students taking this course need to work as part of a team and be prepared to complete some evening and weekend production work.

Music Course Descriptions

12MUS – Music

Qualification: 16 - 40 credits in NCEA Level 2 Music unit and achievement standards

Entry Requirement: Students **must** have gained at least 12 credits in the following areas of the Year 11 course: Solo and Group Performance, Music Materials, Aural, Composition and Music Works **OR** have passed Grade 3 Music Performance and/or Music Theory **OR** have played a musical instrument/vocals for at least three years **OR** have HOD approval. **All** students **must** be prepared to continue learning an instrument or vocal technique from a tutor.

Course Content: Year 12 students work on individualized programmes, in order to fulfil their learning needs and build on their strengths. Opportunity will be given to further develop: Solo and Group Performance skills on one or more instruments; Compositional techniques; Instrumentation; Understanding of the conventions of score reading; Aural skills; the analysis of Music Works and the study of aspects of New Zealand Music. The course has both Internal and External Assessments and will involve performance opportunities. Each student's course will contain standards from the Making Music strand and/or the Music Studies strand, and will be decided upon after consultation with, and approval from, the HOD.

This Course leads to: 13MUS - for which the entry requirement is a minimum of 12 credits in Level 2 Music.

13MUS - Music

Qualification: 18 – 40 NCEA Level 3 Music Unit and Achievement Standards; Scholarship Music.

Entry Requirement: Students **must** have gained at least 12 credits in the following areas of the Year 12 course: Solo and Group Performance, Second Instrument Performance, Composition, Instrumentation, Aural Skills, Research, Materials of Music, Analysis of Music Works or Music Industry in NCEA Level 2 **OR** have passed Grade 4 Music Performance **OR** Music Theory **OR** have played a musical instrument / vocals for at least four years **OR** have HOD approval.

All Students **must** be prepared to continue learning an instrument or vocal technique from a tutor.



Course Content: This music course is designed for students who wish to continue in their music studies and performance in order to gain valuable life skills and also for those who wish to pursue a career in Music. Students will work on individual programmes to suit future musical needs. Opportunity will be given to further develop; Study and Analysis of Music Works; Solo and Group Performance skills on one or more instruments; Compositional and Arrangement techniques; Harmonic and Tonal analysis skills; Research skills and Aural skills. Also, students will have the prospect of running and mentoring a small musical ensemble. The course has both Internal and External Assessments and will involve performance opportunities.
The course will contain standards from the Making Music strand and/or the Music Studies strand, and will be decided upon after consultation with, and approval from, the HOD. Admission into Scholarship standards is by HOD approval.

Visual Arts Course Descriptions

Please note, students are only able to select a maximum of two Level 2 Visual Arts subjects + Art History.

12ARD - Design

Qualification: 20 credits in NCEA Level 2 Art Design standards – 8 internal and 12 external.

Entry Requirement: Either 15 credits in Level 1 Visual Arts, or 15 credits in Level 1 Photography and Design, or with HOD approval

Course Content: This design course is aimed at developing the student's IT skills in conjunction with graphic illustration, observational drawing and learning about established designers and the design process. Students use a range of drawing media along with Adobe Photoshop. An interest in developing drawing skills is helpful to students enrolling in this course. Finished design solutions are presented on the folio board and can be used to create a portfolio for entry into tertiary courses.

This Course leads to: 13ARD - for which the entry requirement is 16 credits in Level 2 Art Design or Level 2 Graphics.

Fee: The 2011 fee was \$40.00 for materials. This may change. Printing is charged separately to each individual student's account.

12ARH - Art History

Qualification: 24 credits in NCEA Level 2 Art History achievement standards – 12 internal and 12 external.

Entry Requirement: 12 credits in Level 1 English; Visual Arts; Photography and Design; History **or** with HOD approval

Course Content: This course involves the study of a range of themes including 19th century painting in France and the development of modern art in New Zealand. Class work is supplemented by research, a gallery visit and some practical activities. Students do not need to have any practical art skill for this course. 12 credits are internally assessed and 12 credits are externally assessed.

This Course leads to: 13ARH – for which the entry requirement is 12 credits in Level 2 Art History; English; Classical Studies; History **or** with HOD approval.



12PAI - Painting

- Qualification:** 20 credits in NCEA Level 2 Painting – 8 internal and 12 external
- Entry Requirement:** Either 15 credits in Level 1 Visual Arts; 15 credits in Level 1 Photography and Design, **or** with HOD approval.
- Course Content:** This course is aimed at developing students' knowledge of painting techniques and methods of working, resulting in finished art works. Units of work encourage the development of an extensive workbook and a variety of artworks in drawing and painting as well as the analysis and research of artworks. Students will develop their own painting skills and explore original ideas based on contemporary art practice. Finished paintings that are presented on the folio board can be used to create a portfolio for entry into tertiary courses.
- This Course leads to:** 13PAI – for which the entry requirement is 16 credits in 12 PAI or 12PSC.
- Fee:** The 2011 fee for 12ARP (which this course replaces) was \$40.00 for materials. This may change.

12PHO - Photography

- Qualification:** 20 credits in NCEA Level 2 Photography - 8 internal and 12 external
- Entry Requirement:** Either 15 credits in Level 1 Visual Arts, or 15 credits Level 1 Photography and Design or with HOD approval.
Students must have their own digital camera, preferably SLR, minimum 8 megapixels.
- Course Content:** This is a practical course with a strong research element, which teaches students to take quality photographs and to see the camera as an art form and as a way to express ideas. Students explore individual creativity and examine the style of contemporary photographers in self-directed study and develop their own photographic theme which is presented on two folio boards using artist models as a starting point to develop original ideas. Finished photographs that are presented on a folio board can be used to create a portfolio for entry into tertiary courses.
- This Course leads to:** 13PHO - for which the entry requirement is either 16 credits in 12 PHO **or** HOD approval.
- Fee:** The 2011 fee was \$60.00 for materials. This may change. Printing is charged separately to each individual student's account.

12PSC – Printmaking and Sculpture

- Qualification:** 20 credits in NCEA Level 2 Printmaking and Sculpture
- Entry Requirement:** Either 15 credits in Level 1 Visual Arts, or 3 unit standards in Level 1 Photography and Design or with HOD approval.
- Course Content:** The course involves all internal achievement standards in which students define their own field of interest through which to develop their ideas and skills. Inquiry as learning, culturally responsive teaching and learning practice are the key teaching approaches. There will be regular formative assessments each semester and 1 summative assessment from which evidence for all three standards will be assessed. The focus will be on meeting all criteria and holistic assessment through the development of practical and research work.
- *Use drawing methods to apply knowledge of conventions appropriate to printmaking and sculpture*



- *Develop ideas in a related series of drawings appropriate to established printmaking and sculpture practices*
- *Produce a resolved work that demonstrates control of skills appropriate to cultural conventions in the field of printmaking or sculpture.*

This Course leads to: 13SCU, 13PRI or 13 PAI for which the entry requirement is 16 credits in either 12PAI or 12PSC **or** HOD approval.

Fee: The 2011 fee for 12ARP (which this course replaces) was \$40.00 for materials. This may change.

Please note, students are only able to select a maximum of two Level 3 Visual Arts subjects + History of Art.

13ARD - Design

Qualification: 24 credits in NCEA Level 3 Art Design achievement standards; - 10 internal, 14 external and Scholarship.

Entry Requirement: 18 credits in Level 2 Art Design or Level 2 Graphics or with HOD approval.

Course Content: Students complete two internal Achievement Standards that explore the design process. One is research based and extends students' knowledge of established practices in design and the other uses drawing as a means to extend and develop original ideas. Students also produce a three A1 folio board. This folio contains the visual exploration of a student's own design brief using IT programmes to generate and resolve ideas. Drawings are shown to document the design process and final solutions. Work provides students with the evidence necessary for portfolio entry into Design and Art schools.

Fee: The 2011 fee was \$50.00 for ink cartridges and boards. This may change. Printing is charged separately to each individual student's account.

13ARH - History of Art

Qualification: 24 credits in NCEA Level 3 Art History Achievement Standards; - 11 internal, 13 external and Scholarship.

Entry Requirement: 12 credits in Level 2 Art History; Classical Studies; English; History or with HOD approval.

Course Content: A student does not need to be an art student to enter this course. Students gain considerable knowledge about the history of art as they explore German Expressionism, modern American art and the work of Renaissance artists including Leonardo da Vinci, Raphael and Michelangelo. The course includes a gallery visit and students are encouraged to access local artworks as they complete the internally assessed work. A wide variety of teaching and learning techniques help students understand why artists have created specific artworks, and why particular techniques were introduced by some of the greatest artists.

13PAI - Painting

Qualification: 24 credits in NCEA Level 3 Painting Achievement Standards – 10 internal and 14 external and Scholarship.



Entry Requirement: 18 credits in Level 2 Painting or with HOD approval.
Course Content: Students work through a series of practical assignments that aim to develop their observation, media, composition and stylistic skills. Students explore a wide range of ideas before selecting their own course of study. The course aims to develop a student's own painting skills and pictorial ideas, based on contemporary art practice. Work produced can also be used to create a portfolio for entry into Design and Art School.
Fee: The 2011 fee was \$50.00 for materials and boards. This may change.

13PHO - Photography

Qualification: 24 credits in NCEA Level 3 Photography Achievement Standards – 10 internal and 14 external and Scholarship.
Entry Requirement: Either 18 credits in Level 2 Photography or 18 credits in a Level 2 Science subject or with HOD approval.
Students must have their own manual SLR camera, with a minimum of 8 megapixels.
Course Content: This course extends and refines skills learnt in Year 12. Students complete two artist model-based assignments before developing their own subject and ideas for a three board folio submission. The course aims to explore an individually selected theme through the application of particular styles of working and evidence of technical skill. The course also places a high emphasis on creativity and the use of the camera as an art form. Work produced can also be used to create a portfolio for entry into tertiary Photography and Art School courses.
Fee: The 2011 fee was \$60.00 for materials and boards. This may change. Printing is charged separately to each individual student's account.

13PTM - Printmaking

Qualification: 24 credits in NCEA Level 3 Printmaking Achievement Standards – 10 internal and 14 external and Scholarship.
Entry Requirement: 18 credits in Level 2 Art Practical or with HOD approval.
Course Content: In the first half of the year, students investigate a range of printing processes and drawing techniques such as etching, engraving and multi-block printing. Assignments are based on work required to extend individual ideas. Towards the end of Term 2, students begin work on an individual theme for their 3 A1 folio boards. A journal is used throughout the year for assignment work, ideas and sketches. Work produced can be used for entry into tertiary Art and Design School courses.
Fee: The 2011 fee was \$50.00 for materials and boards. This may change.

13SCU - Sculpture

Qualification: 24 credits in NCEA Level 3 Sculpture Achievement Standards – 10 internal and 14 external and Scholarship.
Entry Requirement: 12 credits in Level 2 Art Practical, Design or Photography, or 15 credits in Level 2 Science or with HOD approval.
Course Content: In the first half of the year, students investigate a range of sculptural processes and techniques such as cast and mould making, assemblage



and joinery using clay, plaster of Paris and waxwork. Assignments are based on the work required for developing ideas. Towards the end of Term 2, students begin to work on an individual theme for their 3 A1 folio boards. A journal is used throughout the year for assignment work, ideas and sketches. Work produced can be used for entry into tertiary Art and Design School courses.

Fee:

\$50.00 for materials and boards. This may change.



BUSINESS EDUCATION

	Pages
Year 12	
12ACC Accounting	41
12BCM Business Communications	41
12BUS Business Studies	41
12CST Computer Studies	42
12CTY Computer Technology	42
12ECO Economics	43
12FAD Financial Administration	43
12IMT Information Management	43
Year 13	
13ACC Accounting	44
13BUS Business Studies	44
13CLB Computer Literacy for Beginners	44
13CTY Computer Technology	45
13ECO Economics	45
13IMT Information Management	45



Business Education: Year 12 Course Descriptions

12ACC – Accounting

Qualification: 24 credits in NCEA Level 2 and 5 Level 3 credits in Accounting standards; 10 credits towards NZIM Certificate in Management.

Entry Requirement: 11 credits in Level 1 Accounting standards or HOD approval.

Course Content: This course offers students the opportunity to develop logical thinking as well as an understanding of the concepts that are the basis of accounting and the systems necessary to run a successful business. It covers

- Processing of accounting records on a cash or accrual basis with subsidiary ledgers, using Mind Your Own Business computer software
- Identifying an accounting system for a range of sub-systems and carry out an investigation into a business's systems
- Preparing financial statements then analysing and interpreting accounting statements in order to report on the effectiveness of the firm and to present a range of information to assist users in decision-making

This Course leads to: 13ACC – for which the entry requirement is 12 credits in Level 2 Accounting; Tertiary study.

12BCM – Business Communications

Qualification: 20 credits in NCEA Level 2 Business Administration and Computing unit standards. **Taken in conjunction with 12FAD (Year 12 Financial Administration) and 12IMT (Year 12 Information Management), students can earn sufficient credits to complete the National Certificate in Business Administration and Computing Level 2.**

Entry Requirement: Open to all Year 12 and Year 13 students.

Course Content: This is a computer-based course covering personal presentation and production of students' own curriculum vitae. Presentations for business, including report and letter writing skills, audio and Dictaphone practice, desk-top publishing, including layout and graphic design, and health and safety issues, will be emphasised. Video feedback will be used to enhance presentation skills.

This course leads to: 13IMT – for which the entry requirement is a grade of Achieved in *US111: Operate a word processor* or *US107: Produce text processed communications*.

Fee: \$10.00

12BUS - Business Studies

Qualification: 11 credits towards NCEA Level 2 standards and 20 credits towards NCEA Level 2 or 3 from NZIM Certificate in Management papers – *Workplace Communication* and *Introduction to Computing*.

Entry Requirement: 12 credits in Level 1 standards in English, Economics, Geography, Social Studies or History or HOD approval.

Course Content: This course has two sections:
Small Business Management: Students develop an understanding of issues affecting the operation of small businesses and apply these to small businesses through case studies and real life examples. They



develop a range of skills for the setting up and running of a small business, as well as identifying characteristics needed to be a successful businessperson.

The course covers:

- The nature of self-employment.
- The characteristics of small business enterprises.
- Ownership options and business structures.
- Options for acquiring a small business.
- Financing and funding options for business opportunities.
- Legal requirements for small business operations.
- Planning a business activity.

Practical application of the skills learnt can be gained through participation in the Young Enterprise Scheme (YES) (extracurricular) which involves setting up and running a business.

Workplace Communication: Aims to strengthen students' oral and written skills appropriate for workplace communication as well as their teamwork skills. It covers:

- Basic Communication concepts such as barriers to communication
- Analysis of communication in personal and workplace situations for example the variety of verbal and non-verbal communication techniques and identifying forms of communication appropriate for workplace situations.
- Critically reflect on their personal and workplace communication approaches.

Computing: Students develop their computer skills carrying out typical workplace tasks such as:

File management, Word Processing, Spreadsheets, PowerPoint, Email and Internet Searching.

This Course leads to: 13BUS – for which the entry requirement is 12 credits in Level 2 standards in English, Business Studies, Economics, Geography or History or HOD approval. Tertiary study to complete the NZIM Certificate in Management.

12CST - Computer Studies

Qualification: 22 credits in NCEA Level 2 Computing ICDL and unit standards.
19 credits from the **ICDL** (International Computer Driver's Licence)
NCEA Level 2.

Entry Requirement: The equivalent of 12 credits in Level 1 Mathematics Standards and 10 Achievement Standard credits in Level 1 English or HOD approval.

Course Content: This is a general interest course available for Year 12 & Yr 13 students who would like to have a greater understanding of how computers work and become more proficient with common computer applications including Spreadsheets, Computer Graphics and Word Processing.

Fee: \$10 + ICDL Skills Card \$116.00
(Note: Re-sit assessments \$11.00 each)

12CTY – Computer Technology

Qualification: 19 credits in NCEA Level 2 Computing unit standards and achievement standards.

Entry Requirement: The equivalent of 15 credits in Level 1 Mathematics standards, including a grade of Achieved or better in 90147: *Algebra* or HOD approval.



Course Content: This is an advanced technical course that will take an in-depth look at advanced applications, Coding WebPages, Computer Programming, and Control Technology (robotics).

This Course leads to: 13CTY – for which the entry requirement is a grade of Achieved in standard 18740: *Create a simple computer program to the specifications of a given brief.* or 25652; *create a website to the specifications of a given brief* or HOD approval.

Fee: \$10

12ECO - Economics

Qualification: Maximum of 30 credits in NCEA Level 2 Economics achievement standards and unit standards

Entry Requirement: 12 credits in Level 1 Economics, History, Geography, Accounting or HOD approval.

Course Content: This course aims to give students an understanding of the causes and effects of decisions made by Governments, businesses and consumers. It has a minimum of 18 credits that are assessed internally. Students study the following topics: Inflation, Growth, International Trade and Government Policies.
In addition, students research a general economic topic.

This course leads to: 13ECO - for which the entry requirement is 12 credits in Level 2 Economics.

12FAD – Financial Administration

Qualification: 14 credits in NCEA Level 2 Business Administration and Personal Financial Management unit standards and 10 credits at NCEA Level 3. If taken in conjunction with 12BCM (Year 12 Business Communications) and 12IMT (Year 12 Information Management), students can earn sufficient credits to complete the National Certificate in Business Administration and Computing Level 2.

Entry Requirement: 10 credits in Level 1 Mathematics.

Course Content: This course looks at personal financial management and Banking services and then examines the recording systems needed in business financial administration and the documents involved.
Students learn to operate computer accounting systems for accounts receivable and payable and general ledger accounts, as well as processing cash transactions using MYOB.

This Course leads to: Tertiary study; entry level positions in Office Administration, Accounting, Customer Service, Reception and Banking

12IMT – Information Management

Qualification: 22 credits in NCEA Level 2 Business Administration and Computing unit standards. **If taken with 12BCM (Year 12 Business Communications) and 12FAD (Year 12 Financial Administration), sufficient credits can be obtained to complete the National Certificate in Business Administration and Computing Level 2.** CETA Examinations Levels 1 & 2.

Entry Requirement: Open to all Year 12 & 13 students

Course Content: A wide range of computer software will be used to enable students to acquire skills in touch keyboarding, word-processing, audio transcription, health and safety, spread sheeting, data base, graphics



and layout. Document and storage management skills, including intranet Emailing, will be used to promote current business practice.

This Course leads to: 13IMT – for which the entry requirement is a grade of Achieved in *US111: Operate a word processor* or *US107: Produce text processed communications*.

Fee: \$10.00

Business Education: Year 13 Course Descriptions

13ACC - Accounting

Qualification: 28 credits in NCEA Level 3 Accounting standards; Scholarship.

Entry Requirement: 12 credits in Level 2 Accounting standards or HOD approval

Course Content: This course provides a more in depth study of financial accounting including the conceptual basis of accounting, processing and reporting financial information for companies and partnerships, analysis and interpretation of financial statements, the preparation of cash flow statements, and an introduction to cost and management accounting which covers cash budgeting, decision-making and job costing.

This course leads to: Further tertiary study

13BUS - Business Studies

Qualification: 9 credits in NCEA Level 3 Business standards and 20 credits towards NCEA Level 3 through two papers for NZIM Enterprise Certificate in Management: *Introduction to Marketing* and *Introduction to Management*.

Entry Requirement: 12 credits in Level 2 standards in English, Business Studies, Economics, Geography or History or HOD approval

Course Content: The course has two sections:

Marketing This module aims to provide students with an introduction to the study of the principles and practices of marketing management. It includes a study of the marketing function, market research, buyer behaviour, market segmentation, the marketing mix, marketing planning and strategy.

Management This module aims to provide students with an introduction to the essential elements of business organisation and management, particularly the various types of organisations and organisation structure. It includes the role and functions of management, managerial decision-making process, and general, ethical, social responsibilities of management.

This course leads to: Further tertiary study.

13CLB – Computer Literacy for Beginners

Qualification: 7 credits in NCEA Level 1 and 13 credits at NCEA Level 2

Entry Requirement: No previous CST, CTY, IMT or BCM experience **or** HOD approval

Course Content: This is an introductory Level 1 and Level 2 course for Year 13 students who have not / do not take 12/13 Computing, BCM and IMT courses. Skills learnt include word processing, spreadsheets and desktop publishing.

This course leads to: Further tertiary study

Fee: \$10



13CTY - Computer Technology

Qualification: 20 credits in NCEA Level 3 Technology UE accredited Achievement Standards.

Entry Requirement: A grade of Achieved in standards: - 18740: *Create a simple computer program to the specifications of a given brief* and 25656; *create a website to the specifications of a given brief* or HOD approval.

Course Content: This course is designed for students with a proven aptitude for computing, who are likely to pursue further studies in computer science at tertiary level. Advanced applications and advanced website design form the basis of the course.

This course leads to: Further tertiary study.

Fee: \$20

13ECO - Economics

Qualification: 24 credits in NCEA Level 3 Economics achievement standards; Scholarship.

Entry Requirement: 12 credits in Level 2 Economics or Accounting or Mathematics or HOD approval.

Course Content: This course provides students with the opportunity to study issues facing businesses and Government as they make decisions about resource allocation and the impact of these decisions on people and their environment. It has 5 credits that are assessed internally and 19 credits that are assessed by external examination. For the internally assessed credits, students are required to carry out an investigation of an economic issue. For the external examination, students study the following topics:

- Concepts of Supply and Demand
- The Market and Allocative Efficiency
- Government Intervention
- Aggregate Economic Activity

This course leads to: Further tertiary study

13IMT – Information Management

Qualification: 21 credits in NCEA Level 3 Business Administration and Computing unit standards, which also contribute towards the National Certificate of Business Administration and Computing Level 3; National CETA Exams Levels 2 & 3.

Entry Requirement: Must have achieved half of the available credits in 12IMT or 12BCM, plus a grade of Achieved in *US111: Operate a word processor* or *US107: Produce text processed communications*.

Course Content: This course advances Wordprocessing and Keyboarding techniques for formatting, display and layout, and graphics, for business applications. Business communications skills, report writing and composition, are developed through expanded use of computer software applications and research.

This Course leads to: Further tertiary study and Office Administration positions

Fee: \$10.00



ENGLISH

	Pages
Year 12	
12ENA Advanced English	47
12ENC Communication English	47
12ENG English	47
Year 13	
13ENC Communication English	47
13ENG English	48



English: Year 12 Course Descriptions

12 ENA – Advanced English

- Qualification:** 25 credits in NCEA Level 2 English achievement standards
- Entry Requirement:** **Restricted entry.** Performance in NCEA Level 1 English achievement standards will determine who is invited to participate in this course. Students are expected to achieve consistently high standards ('Merit' and 'Excellence') in Level 1. Unfamiliar texts attained in externals is important.
- Course Content:** Students undertake appropriate studies to fulfil English Level 2 standards at the 'Excellence' level.
The course consists of literature studies (novel, short stories, poetry, Shakespeare, film), writing studies (academic language use, creative writing and formal writing), and oral presentations.
- This course leads to:** 13 ENG for which the entry requirement is 15 credits in Level 2 English achievement standards, or 13 ENC.

12 ENC – Communication English

- Qualification:** 18 credits in NCEA Level 1 English unit standards and Level 2 Communication unit standards.
- Entry Requirement:** Open to Year 12 students who are below the entry requirements for 12 ENG, with HOD approval.
- Course Content:** The course is designed to further develop practical English communication skills. The emphasis is on preparing students with the communication skills needed in the workforce. The course will allow students to gain **Level 1 literacy credits**.
Students who require **Level 2 literacy** for entry to tertiary study should enrol in 12 ENG.
- This course leads to:** 13 ENC which offers Level 2 and Level 3 English literacy credits with optional externally assessed standards where needed.

12 ENG – English

- Qualification:** 25 credits in NCEA Level 2 English achievement and unit standards.
- Entry Requirement:** At least 10 credits in Level 1 English standards. This course is intended for students who do not achieve entry to 12 ENA but who wish to achieve Level 2 literacy credits.
- Course Content:** The course will involve a combination of literature studies and language studies. Texts will be selected from prose (short studies, novel, drama), poetry. Writing tasks will include formal writing and creative writing. Some presentation of tasks will be required.
- This course leads to:** 13 ENG with HOD approval, or 13 ENC. Subject standards may change according to realignment by NZQA.

English: Year 13 Course Description

13 ENC – Communication English

- Qualification:** 22 or 23 credits in NCEA Level 2 English achievement and unit standards.
Students will be prepared to enter some Level 3 standards.



Entry Requirement: Open to all Year 13 students who do not have the Level 2 literacy credits required for the common University Entrance standard.

Course Content: Designed to meet the specific needs of Year 13 students seeking Level 2 literacy credits for tertiary study, the emphasis of the course is on language skills and literacy growth. Studies include some literature studies, including film study, and writing assessments.

13 ENG - English

Qualification: 24 credits in NCEA Level 3 English achievement standards; some students will be able to attempt Scholarship.

Entry Requirement: 13 credits in Level 2 English standards (gained through the 12 ENA course), or HOD approval. Unfamiliar texts externally gained is important. To attempt Scholarship, students will have demonstrated at Levels 1 and 2 English that they have the study habits and the achievements ('Merit' and 'Excellence') to handle the demands of this high level programme. Students will have achieved at least 15 credits in Level 2 English standards (gained through 12 ENA) with HOD approval.

Course Content: Students undertake: study of literature texts including Shakespeare, research a literary topic, language studies including writing, and an oral presentation on a literary topic.

The external Scholarship assessment requires students to synthesise literary and language issues across a range of texts, as well as study individual texts in depth. Writing skills and independent reading must be at a high level.

The internal assessments are on the research, writing, and oral presentation. Other standards (Level 3 and Scholarship) are externally examined.



ENGLISH for Speakers of Other Languages

	Pages
Year 12	
12ESL English for Speakers of Other Languages	49
12EUE English for University Entrance	49
Year 13	
13ESL English for Speakers of Other Languages	49
13EUE English for University Entrance	49



English for Speakers of Other Languages: Year 12 Course Description

12ESL – English for Speakers of Other Languages High School Graduation Class (International Students)

Qualification: Working towards ESOL Level 2 Unit Standards.

Entry Requirement: Year 12 non-speakers of English **or** HOD approval.

Course Content: Assistance with proficiency in conversation, written grammar and further vocabulary acquisition. ESOL Unit Standards will be offered.

12EUE – English for University Entrance English for Speakers of Other Languages who want to gain NZ University Entrance.

Qualification: NCEA Literacy Level 2

Entry Requirement: **Year 12 and 13 non English speakers who have passed literacy Level 1** or HOD approval.

Course Content: This is for students wishing to complete their UE Literacy Level 2. They will work toward gaining the 8 literacy credits required for University Entrance in reading and writing.

English for Speakers of Other Languages: Year 13 Course Description

13ESL – English for Speakers of Other Languages High School Graduation Class (International Students)

Qualification: Working towards ESOL Level 2/3 unit standards.

Entry Requirement: Year 13 non-speakers of English **or** HOD approval.

Course Content: Assistance with proficiency in conversation, written grammar and further vocabulary acquisition. ESOL Unit Standards at Levels 2 and 3 will be offered.

13EUE – English for University Entrance English for Speakers of Other Languages who want to gain NZ University Entrance.

Qualification: NCEA Literacy Level 2

Entry Requirement: Year 13 non English speakers **who have passed Literacy Level 1** or HOD approval.

Course Content: This is for students wishing to complete or extend their NCEA Literacy Level 2. They will work toward gaining the 8 literacy credits required for University Entrance in reading and writing.



HUMANITIES

		Pages
Year 12		
12CLS	Classical Studies	52
12GEO	Geography	52
12HIS	History	52
12MED	Media Studies	53
12TOA	Tourism A	53
12TOA	Tourism B	53
Year 13		
13CLS	Classical Studies	53
13GEO	Geography	54
13HIS	History	54
13MED	Media Studies	54



Humanities: Year 12 Course Descriptions

12CLS – Classical Studies

- Qualification:** 24 credits in NCEA Level 2 Classical Studies achievement standards
- Entry Requirement:** 13 credits in Level 1 English **or** History **or** Social Studies **or** HOD approval
- Course Content:** This course involves the study of topics relating to Greek life and culture. The topics for 2012 will include: Greek Mythology, Homer's Odyssey, Athenian art and architecture and Athenian social life.
- This Course leads to:** 13CLS - for which the entry requirement is 12 credits in Level 2 Classical Studies, History or English or HOD approval.
- Costs:** Revision/work books \$16. This may be subject to change.

12GEO - Geography

- Qualification:** 21 credits in NCEA Level 2 Geography standards.
- Entry Requirement:** 14 credits in Level 1 Geography or 10 Level 1 credits in both English and Mathematics and / or HOD approval.
- Course Content:** External Achievement Standards
- Natural Landscapes – Amazon
 - Development – Fiji / Samoa
 - Skills and ideas in a geographic context
- Internal Achievement Standards
- Geographical research
 - Geographic Issue
 - Global study
- 11 credits of the course are assessed internally and 10 credits are assessed externally. There is 1 field trip. Students are required to purchase two workbooks for these units of work.
- This Course leads to:** 13GEO - for which the entry requirement is 15 credits in Level 2 Geography.
- Costs:** Approx. \$30 for the field trip.

12HIS - History

- Qualification:** 24 credits in NCEA Level 2 History achievement standards
- Entry Requirement:** 12 credits in Level 1 Social Studies **or** 12 credits in Level 1 History including a grade of Achieved or better in *AS 91005: Describe the causes and consequences of a historical event.*
- Course Content:** Students will study the following topics for the external examinations worth 12 credits:
Terrorism the new world war, The Vietnam War and The rise and fall of Nazi Germany.
There will also be an internally assessed research assignment worth credits in which students will enter imaginatively into the events of the past.
- This Course leads to:** 13HIS - for which the entry requirement is 12 credits in Level 2 History, including a grade of Achieved or better in *Examine causes and consequences of a significant historical event.*
- Costs:** Terrorism workbook \$8. This may be subject to change.



12 MED – Media Studies

- Qualification:** 21 - 24 credits in NCEA Level 2 Media Studies achievements standards
- Entry Requirement:** 12 credits in Level 1 Humanities or English
- Course Content:** This course is a study of how the media industry represents the society we live in. Students will also study a film genre (e.g. horror), learn how film narratives are developed and create their own media product (short film). Students will also investigate a topical media issue.
Note: This course is a combination of theory and practical work. A commitment to both is expected. Students will be encouraged to use ICT/media technologies to complete coursework and access to this technology is preferred (although not essential).
- This Course leads to:** 13MED - for which the entry requirement is 15 credits in Level 2 Media Studies or HOD approval.
- Costs:** \$20 for folder/Workbook

12TOA – Tourism A

- Qualification:** 22 credits in NCEA Level 2 and 3 Tourism Unit Standards. **National Certification in Tourism, Introductory Skills Level 2, if taken in conjunction with 12 Tourism B.**
- Entry Requirement:** 10 Achievement Standard credits in Level 1 Geography, History, Social Studies or Economics **and** 8 credits in Level 1 Mathematics **and** must be eligible to study Level 2 English or HOD approval.
- Course Content:** This course will emphasise knowledge of New Zealand and the Pacific Islands from a geographical, historical and tourism perspective and includes the role and significance of Tourism within a New Zealand setting. It will also assess a range of generic tourism unit standards.
- This course leads to:** Study at Tertiary level towards the National Certificate in Tourism Level 3.

12TOB – Tourism B

- Qualification:** 22 credits in NCEA Level 2 and 3 Tourism Unit Standards. **National Certification in Tourism, Introductory Skills Level 2, if taken in conjunction with 12 Tourism A.**
- Entry Requirement:** 10 Achievement Standard credits in Level 1 Geography, History, Social Studies or Economics **and** 8 credits in Level 1 Mathematics **and** must be eligible to study Level 2 English or HOD approval.
- Course Content:** A large part of this course will emphasise knowledge of Australia and the rest of the World as tourist destinations. Knowledge and skills required for working in the tourism and travel industry are studied, as are generic tourism unit standards.
- This course leads to:** Study at Tertiary level towards the National Certificate in Tourism Level 3.
- Costs:** Students taking both TOA and TOB, or Year 13 students who are completing the National Certificate in Tourism started in 2011, are eligible to go on an optional trip to Rotorua with Year 13 Geography, the cost of which was \$230 in 2011.



Social Sciences: Year 13 Course Descriptions

13CLS - Classical Studies

- Qualification:** 24 credits in NCEA Level 3 Classical Studies achievement standards; Scholarship.
- Entry Requirement:** 10 credits in Level 2 Classical Studies/Art History or 13 credits in Level 2 History or English or HOD approval.
- Course Content:** This course involves the study of topics relating to Greek and Roman life and culture. The topics for 2012 will include: Virgil's *Aeneid*, Greek Vase painting, Alexander the Great or Socrates.
- Costs:** Revision/work book \$18. This may be subject to change.

13GEO - Geography

- Qualification:** 21 credits in NCEA Level 3 Geography standards.
- Entry Requirement:** 15 credits in Level 2 Geography or 12 Level 2 credits in English and 10 credits in Level 1 Mathematics and HOD approval.
- Course Content:** External Achievement Standards
- Natural processes – Muriwai Coastal Environment
 - Cultural Processes – Tourism development in Rotorua and the Gold Coast
 - Skills and ideas in a geographic context.
- Internal Achievement Standards
- Geographical research
 - Geographic issue
 - Global study
- 9 credits are assessed internally and 12 credits are assessed externally. There are 2 field trips, one of which is an overnight trip. Students are required to purchase two workbooks for these units of work.
- This course leads to:** University and other tertiary education providers, entry.
- Costs:** Approx. \$250 for the two field trips.

13HIS - History

- Qualification:** 24 credits in NCEA Level 3 History Achievement Standards; Scholarship.
- Entry Requirement:** 12 credits in Level 2 History, including a grade of Achieved or better in *AS90469: Examine a force or movement that has influenced peoples' lives in an essay* or *AS90470: Examine individual or group identity in an essay*, or HOD approval.
- Course Content:** 9 credits of this course are assessed through a research assignment and a power-point presentation, which draw on students' skills of research, synthesis and communication and are based on a field trip. The remaining 15 credits are assessed in the end of year external examinations. For these, students study themes from nineteenth century New Zealand history and Tudor and Stuart England.
- Cost:** Revision book \$10 (This may be subject to change).

13 MED – Media Studies

- Qualification:** 20 credits in NCEA Level 3 Media Studies achievements standards
- Entry Requirement:** 15 credits in Level 2 Media Studies or HOD approval



Course Content: This course builds on the skills and knowledge students gained in Level 2 Media Studies. Students will study a specific media industry (Hollywood), analyse how society influences a media genre (Film Noir) and research an aspect of media affecting New Zealand (e.g. Copyright Laws). Students will also develop, plan and produce their own short film.

Note: This subject is a combination of theory and practical work – a commitment to both is expected. Students will be encouraged to use ICT/media technologies to complete coursework and access to this technology is preferred (although not essential).

This course leads to: University Study, Journalism, Marketing, Advertising, Filmmaking, Broadcasting, Teaching.

Costs: \$20 for folder workbook



LANGUAGES

		Pages
Year 12		
12FRE	French as a Second Language	57
12MAO	Te Reo Maori	57
12SPA	Spanish as a Second Language	57
Year 13		
13FRE	French as a Second Language	57
13MAO	Te Reo Maori	58
13SPA	Spanish as a Second Language	58



Languages: Year 12 Course Descriptions

12FRE - French as a Second Language

- Qualification:** 24 credits in NCEA Level 2 French achievement standards.
- Entry Requirement:** 12 credits in Level 1 French or HOD approval
- Course Content:** Students at this advanced level learn to communicate about future plans, give opinions with reasons, give and respond to advice, provide information and recount past events. They explore issues of relevance to young people such as relationships, health, travel, films and their future. Students will be assessed internally throughout the year on speaking skills (9 credits, Interaction 5, Speech 4) and writing skills (5 credits) as well as externally assessed on listening and reading skills (total of 10 credits).

This Course leads to: 13FRE - for which the entry requirement is 12 credits in Level 2 French.

12MAO - Te Reo Māori

- Qualification:** 30 credits in NCEA Level 2 Te Reo Māori achievement standards and 12 credits in NCEA Level 2 Māori Performing Arts
- Entry Requirement:** 15 credits in Level 1 Te Reo Māori or HOD approval
- Course Content:** In this course students are increasingly confident in using a range of strategies for learning Te Reo Māori and for communicating with others in predominantly Māori social contexts and through the following topics: tangihanga (funerals), famous Māori people, Māori creative and performing arts, entertainment eg television, music, movies and community events, health and well-being and the marae.

This Course leads to: 13MAO - for which the entry requirement is 20 credits in Level 2 Te Reo Māori or HOD approval.

12SPA - Spanish as a Second Language

- Qualification:** 24 credits in NCEA Level 2 Spanish achievement standards
- Entry Requirement:** 12 credits in Level 1 Spanish or HOD approval
- Course Content:** In Year 12, students begin an advanced course of study with particular focus on reading and writing skills. Students study family life and their future, travel and tourism, the media and hispanic history and indigenous cultures. Students will be internally assessed on both speaking skills (9 credits, Interaction 5, Speech 4) and writing skills (5 credits) as well as externally assessed on listening and reading skills (total of 10 credits).

This Course leads to: 13SPA - for which the entry requirement is 12 credits in Level 2 Spanish.

Languages: Year 13 Course Descriptions

13FRE - French as a Second Language

- Qualification:** 21 credits in NCEA Level 3 French achievement standards; Scholarship + 6 credits in NCEA Level 3 French unit standards.
- Entry Requirement:** 12 credits in Level 2 French or HOD approval
- Course Content:** By the end of this course, students will be able to communicate about global issues, express possibility and probability, develop a point of view



with reasons, use language to inform, persuade and entertain, as well as discuss literature or films. Students will be internally assessed on writing (6 credits) and speaking (6 credits, Conversation 3, Speech 3) skills and externally assessed on listening, reading and writing skills (total of 15 credits).

13MAO - Te Reo Māori

Qualification: 30 credits in NCEA Level 3 Te Reo Māori achievement standards and a possibility of 10 credits in NCEA Level 3 Māori Performing Arts.

Entry Requirement: 20 credits in Level 2 Te Reo Māori or HOD approval

Course Content: In this course students use a range of strategies to help them learn Te Reo Māori effectively, and they will be able to demonstrate a high level of fluency for a learner of Te Reo Māori as a second language through a range of topics.

This course leads to: University Te Reo Māori – Intermediate/Conversational Level.

13SPA - Spanish as a Second Language

Qualification: 24 credits in NCEA Level 3 Spanish achievement standards; Scholarship

Entry Requirement: 12 credits in NCEA Level 2 Spanish or HOD approval

Course Content: This course builds on Year 12 to further develop written and oral skills. Students study social issues such as the environment, drugs, alcohol, healthy life-styles and Hispanic culture. They learn to argue for and against, give advice and express doubt and probability. Students will be internally assessed on writing (6 credits) and speaking (6 credits, Conversation 3, Speech 3) skills and externally assessed on listening, reading and writing skills (total of 15 credits).



MATHEMATICS

	Pages
Year 12	
12MAA Advanced Mathematics	60
12MAT1 Mathematics	60
12MAT2 Mathematics	60
Year 13	
13MAC Mathematics with Calculus	61
13MAS Mathematics - Statistics and Modelling	61



Mathematics: Year 12 Course Descriptions

Year 12 students will be allocated to one of the following Mathematics Courses, based on their results gained in Year 11 Mathematics.

12MAA – Advanced Mathematics

Qualification: At least 20 credits in NCEA Levels 2 and 3 Mathematics achievement standards

Entry Requirement: **Restricted entry.** Entry to this course is by invitation. It is expected that students will have achieved Merit or Excellence in Level 1 achievement standards and will also have achieved the Level 2 achievement standards in the 11MAA course.

Course Content: This is an extension course for very able Mathematics students, who will be expected to achieve at the Excellence level.

This Course leads to: 13MAC – for which the entry requirement is 16 credits at Level 2 Mathematics including the Calculus, Algebra and Trigonometry standards or HOD approval
and
13MAS – for which the entry requirement is 14 credits at Level 2 Mathematics including: assessments in Probability and Statistics and the Algebra assessment or HOD approval.

12MAT1 - Mathematics

Qualification: At least 20 credits in NCEA Level 2 Mathematics, with greater emphasis on Algebra and Calculus. Students intending to go on and take 13MAC should be in 12MAT1.

Entry Requirement: This is a course for students from either 11MAA or 11 MAT who have demonstrated understanding and good achievement particularly in the AS91028 (Patterns, Rules and Graphs), AS91027 (Algebraic Procedures), AS91035 (Statistics) and AS91037 (Probability) or HOD approval.

Course Content: This course relies heavily on Algebra skills and the ability to solve word problems using mathematical knowledge. It is not a course for students who have struggled at Level 1. It covers all strands of the National Curriculum: Number and Algebra, Measurement and Geometry, Statistics and Probability and includes Calculus and Trigonometry

This Course leads to: 13MAC – for which the entry requirement is 16 credits at Level 2 Mathematics including the Calculus, Algebra and Trigonometry standards or HOD approval
and
13MAS – for which the entry requirement is 14 credits at Level 2 Mathematics including: assessments in Probability and Statistics and the Algebra assessment or HOD approval.

12MAT2 - Mathematics

Qualification: At least 20 credits in NCEA Level 2 Mathematics, with greater emphasis on the Statistics and Probability Standards than the Calculus and Algebra Standards.

Entry Requirement: This is a course for students from either 11MAA or 11MAT. Students from 11MAB will gain entry to this course only with HOD approval.



Students entering this course should have at least 14 credits from the Level 1 standards including AS91035 (Statistics) and AS91037 (Probability).

Course Content: This course in particular covers the Statistics and Probability internal and external Level 2 standards. This work will be supported by the other strands of the National Curriculum, which will be covered and assessed using selected, mostly internally assessed, standards.

This Course leads to: 13MAS – for which the entry requirement is 14 credits at Level 2 Mathematics including: assessments in Probability and Statistics and the Algebra assessment or HOD approval.

Students taking 12MAT2 will not have the entry requirements for 13MAC.

Mathematics: Year 13 Course Descriptions

13MAC - Mathematics with Calculus

Qualification: 24 credits in NCEA Level 3 Mathematics achievement standards; Scholarship.

Entry Requirement: 14 credits in Level 2 Mathematics including:
4 credits from the external assessment AS90286 Calculus, 4 credits from the external assessment AS90284 Algebra and 2 credits from AS90292 Trigonometry or HOD approval.

Course Content: This course continues the more theoretical aspects of Mathematics with particular emphasis on Calculus. It can be considered as an additional course for students who are likely to continue a study of Mathematics at a tertiary institution. Physics students are recommended to also take Calculus.

13MAS – Mathematics - Statistics and Modelling

Qualification: 24 credits in Mathematics NCEA Level 3 achievement standards; Scholarship.

Entry Requirement: 14 credits in Level 2 Mathematics including: 5 credits from the internal assessments AS90289 Probability, AS90288 Statistics and the 4 credits from AS90284, the Algebra external assessment or HOD approval

Course Content: This provides a first course in statistical procedures and extends Year 12 work on algebraic, graphical and computational skills. It should be considered by students with an interest in the Biological and Social Sciences, Commerce and Medicine. It is useful for most University courses and a variety of careers.



PHYSICAL EDUCATION and HEALTH

		Pages
Year 12		
12HEA	Health Education	63
12PED	Physical Education: Sports Education Option	63
12PEL	Sports Leadership	63
12PEO	Physical Education: Outdoor Education Option	64
Year 13		
13PED	Physical Education: Sports Education Option	64
13PEL	Sports Leadership	64
13PEO	Physical Education: Outdoor Education Option	65



Physical Education: Year 12 Course Descriptions

12HEA – Health Education

- Qualification:** 20 credits in Level 2 Health Education standards.
- Entry Requirement:** 12 credits in Level 1 Health Education, one standard of which needs to be an externally assessed achievement standard.
- Course Content:** This course builds on the knowledge that students have gained from participating in Level 1 Health Education. Students will examine adolescent issues and the possible short and long-term consequence on their well-being. The course looks at the influences in mental health and the strategies to maintain a state of mental health and personal safety. Students will also examine issues surrounding gender identity, sexuality and social justice in relation to gender. A major topic is based around critical action where the students develop, implement and evaluate a plan to enhance hauora/well-being of students in the school or in the community.

12PED - Physical Education - Sports Education Option

- Qualification:** 21 credits in NCEA Level 2 Physical Education standards
- Entry Requirement:** 14 credits in Level 1 standards in 11PEA or 11PED, including a grade of Achieved or better in AS90963: *Demonstrate knowledge of body structure and function related to performance of physical activity* or HOD approval. **Note: 12PED cannot be taken with 12PEO.**
- Course Content:** Students will develop their skills in the sports of swimming, basketball and football. Outside providers will be engaged to develop sport psychology skills and test fitness levels. This will also require students to use and visit some of the performance testing facilities in the Auckland region. Students will also examine the relationship between regular exercise and concepts of fitness. Principles of anatomy, biomechanics and skill development are investigated. The sociological significance of the Olympics is also explored.
- This Course leads to:** 13PED – for which the entry requirement is 13 credits in 12 PED standards.
- Fee:** \$150 (for sport science camp)

12PEL – Sports Leadership

- Qualification:** 11 credits in NCEA Level 2 Sports Teaching and Coaching unit standards and 3 MIT Level 2 Local Unit credits, MIT Certificate of Achievement Sport Leadership (Level 2).
- Entry Requirement:** 6 credits in NCEA Level 1 Physical Education standards.
- Course Content:** This course allows students to identify and enhance their potential in the sport and recreation arena by increased understanding and knowledge. Aspects covered include how to plan and lead a recreational activity, development of personal skills through adventure based learning, knowledge and management of sports injuries and implementing Kiwisport leadership skills.
- This course leads to:** 13PEL



12PEO - Physical Education - Outdoor Education Option

- Qualification:** 22 credits in NCEA Level 2 Physical Education standards.
- Entry Requirement:** 14 credits in Level 1 standards in 11PEA or 11PED, including a grade of Achieved or better in AS90963: *Demonstrate knowledge of body structure and function related to performance of physical activity* or HOD approval. This course will be limited to two classes of 24 students. Selection will be based on performance in the Level 1 Physical Education achievement standards. **Note: 12PEO cannot be taken with 12 PED.**
- Course Content:** Students will develop their skills in the outdoor pursuits of kayaking, windsurfing, snow boarding and high ropes. Leadership and safety management strategies will be applied during the year at camps and a Waitakere tramp. Students will examine relationships between regular exercise and concepts of fitness and health. Principles of anatomy, biomechanics and skill learning are investigated. Students are expected to participate in all outdoor pursuits.
- This Course leads to:** 13PEO – for which the entry requirement is 13 credits in 12PEO standards.
- Fee:** The fee for 2012 will be \$300 for camps and related activities.

Physical Education: Year 13 Course Description

13PED - Physical Education – Sports Education option

- Qualification:** 19 credits in NCEA Level 3 Physical Education standards; Scholarship.
- Entry Requirement:** 13 credits in NCEA Level 2 standards assessed in 12PED or HOD approval. **Note: 13PED cannot be taken with 13 PEO.**
- Course Content:** This is an academic course where theory and principles learnt in 12PED Physical Education are put into practice. Students will plan and review a duathlon or multisport training programme. They will appraise performance and then plan and evaluate a programme for physical improvement. They will also demonstrate performance in a duathlon and examine a current physical activity, event or trend impacting on New Zealand society.
- Fee:** The 2011 fee was \$60.00 for outside providers and event fees. This may change.

13PEL – Sports Leadership

- Qualification:** 21 credits in NCEA Level 3 Sports Teaching and Coaching unit standards, MIT Certificate of Achievement Sport Leadership (Level 3).
- Entry Requirement:** 8 credits in 12 PEL NCEA Level 2 standards.
- Course Content:** This course allows students to identify and enhance their potential in the sport and recreation arena by increased understanding and knowledge. Aspects covered include planning, conducting and reviewing a coaching session, exercise techniques and teaching to develop fundamental sports skills.
- This course leads to:** Further study in this area at Manukau Institute of Technology.



13PEO - Physical Education - Outdoor Education Option

- Qualification:** 19 credits in NCEA Level 3 Physical Education standards, 5 credits in Level 2 Physical Education standards: Scholarship
- Entry Requirement:** 13 credits in NCEA Level 2 standards assessed in 12PEO or HOD approval. This course will be limited to 26 students. Selection will be based on performance in the Level 2 Physical Education achievement standards. **Note: 13 PEO cannot be taken with 12PEF, 13PEF or 13PED.**
- Course Content:** This is an academic course where the theory and principles learnt in 12PEO are put into practice. Students will attend a week long camp at Great Barrier Outdoor Pursuits Centre. They will appraise physical performance and then plan and evaluate a programme for physical improvement. Current trends in physical activity will also be examined.
- Fee:** The fee for 2012 will be \$300 for outdoor pursuits centre and rock climbing.



SCIENCES

		Pages
Year 12		
12BIO	Biology	67
12CHE	Chemistry	67
12ELN	Electronics	67
12PHY	Physics	68
Year 13		
13BIO	Biology	68
13CHE	Chemistry	68
13ELN	Electronics	69
13PHY	Physics	69
13SCI	Science	69



Sciences: Year 12 Course Descriptions

12BIO - Biology

Qualification:

22 credits in NCEA Level 2 Biology achievement standards.

Entry Requirement:

16 credits in Level 1 Science achievement standards, including a grade of Achieved or better in SCI 1.9: *Demonstrate an understanding of genetic information* **and/or** SCI 1.14: *Demonstrate understanding of carbon cycling* BIO 1.1: *Carry out a practical investigation*, **or** BIO 1.2: *Report on a biological issue* **or** BIO 1.5: *Demonstrate an understanding of biological ideas relating to a mammal as a consumer* **or** HOD approval.

Course Content:

This course offers a comprehensive study of biological concepts, from fundamental principles to complex systems. The course focuses on the processes of life and the mechanisms by which organisms, of a wide variety, sustain themselves. The investigative-based study trip and laboratory activities are an essential component of this course. These give students the opportunity to experience 'hands-on' biology and develop a sense of the 'real-life' biology that exists all around us. The main areas of study are: Cell Biology, Ecology, Genetics and Variation and Applied Biological Techniques.

This Course leads to:

13BIO - for which the entry requirement is 15 credits in Level 2 Biology achievement standards, including a grade of Achieved or better in BIO 2.1: *Carry out a practical investigation in a biology context* **or** BIO 2.6: *Investigate a pattern in an ecological community* **and** BIO 2.3: *Demonstrate understanding of adaption of animals to their way of life*.

Course Costs:

Approximately \$15 for bus to Waharau Regional Park for Ecology Field Trip

12CHE - Chemistry

Qualification:

24 credits in NCEA Level 2 Chemistry achievement standards

Entry Requirement:

13 credits in Level 1 Science achievement standards, including 5 credits in AS90189: *Describe Aspects of Chemistry* or HOD approval.

Course Content:

This course offers students a comprehensive study of the field of chemistry. The extensive practical component provides students with the opportunity to develop the essential skills of chemistry and gain greater understanding by investigating chemical phenomena. The main areas of study are: Structure and Bonding in Substances, Organic Chemistry, Principles of Chemical Reactivity and Oxidation – Reduction Reactions.

This Course leads to:

13CHE - for which the entry requirement is 12 credits in Level 2 Chemistry achievement standards.

12ELN - Electronics

Qualification:

24 credits in NCEA Level 2 Electronics Technology unit standards. This is part of the **National Certificate in Electronics Technology (NCET) Level 2**. The programme was developed and is administered by the Electronics Technology Industry Training Organisation (ETITO).

Entry Requirement:

Students need to have achieved 12 credits in NCEA Level 1 Science achievement standards and 12 credits in NCEA Level 1 Mathematics achievement standards or have HOD approval.



Course Content: This course progressively develops electronics skills used in the electronics industry. All prerequisite theory is covered, although emphasis is on practical work. Basic circuits are covered, culminating in the design and construction of printed circuit boards (PCBs) and building a project on the PCB. Hands-on experience is an important part of this course.

This Course leads to: Year 13 Electronics course (NCET, Level 3) and/or further study at an approved training institute.

12PHY - Physics

Qualification: 23 credits in NCEA Level 2 Physics achievement standards

Entry Requirement: 12 credits in Level 1 Science achievement standards, including a grade of Achieved or better in AS90940: *Describe understanding of aspects of mechanics* and 1 of algebra or graphs at Level 1 or HOD approval.

Course Content: In this course, some of the exciting applications of physics studied include: the use of radiation in medicine, electrical circuits in cars and the home, electricity generation by windmills, bungy-jumping, rips at surf beaches and automobile crash design. Practical work is an important part of the course. The main areas of study are: mechanics, electricity, atomic and nuclear physics, light and waves.

This Course leads to: 13PHY - for which the entry requirement is 14 credits in Level 2 Physics achievement standards.

Sciences: Year 13 Course Descriptions

13BIO - Biology

Qualification: 24 credits in NCEA Level 3 Biology achievement standards; Scholarship.

Entry Requirement: 15 credits in Level 2 Biology achievement standards, including a grade of Achieved or better in the internal assessments for AS90457: *Carry out a practical biological investigation with supervision* **or** AS90460: *Investigate an interrelationship or pattern in an ecological population or community*, **or** HOD approval. A grade of Achieved or better in AS90459: *Describe genetic change and variation* is highly recommended.

Course Content: This course offers studies into advanced biological concepts such as evolution, genetics, behaviour and applied biotechnology. It emphasises the important biological issues for humans including aspects of gene therapy, human impact on other life forms and the influence of the environment on the behaviour and evolution of organisms, including humans. Students undertake research activities and an investigation into the ecological niche of an organism and its relationship to its environment as internal assessments. The main areas of study are: DNA and Genes, Mutations and Inheritance, General Evolutionary Theory, Human Biological and Cultural Evolution, Animal and Plant Behaviour, Contemporary Biological Issues and Biotechnological Techniques.

Course Costs: Approximately \$30 for bus/Zoo/Museum visit for Primate/Human evolution studies



13CHE - Chemistry

Qualification: 20 credits in NCEA Level 3 Chemistry achievement standards; Scholarship.

Entry Requirement: 12 credits in Level 2 Chemistry achievement standards: at least 7 credits from 2.4, 2.5, 2.6 and 2.7 and 5 credits from 2.1, 2.2 and 2.3, or HOD approval.

Course Content: This course builds upon the knowledge and skills acquired in the previous year to extend the student's understanding of chemical phenomena. The main areas of study are: Oxidation - Reduction Processes, Properties of Particles and Thermochemical Principles, Organic Chemistry, and Equilibrium Principles. Students will also be required to carry out practical investigations, which will be internally assessed.

13ELN – NCET Level 3 Electronics

Qualification: 22 credits in Unit Standards in Level 3

Entry Requirement: **At least 12 credits** from NCET Level 2 or at the discretion of the HOD.

Course Content: In this course students will develop their knowledge and skills in electronics to enable them to design circuits and products that are fit for purpose and acquire an understanding of the career opportunities within ICT industries. This includes: Basic circuitry, measurements and calculations, PCB design and construction skills, circuit design involving both discrete components and integrated circuits, programming and understanding IR communications between micros, management skills in designing and constructing an individual project.

This Course leads to: This is part of the National Qualifications Framework, which leads to a National Certificate in Electronics Technology (Level 3).

13PHY - Physics

Qualification: 24 credits in NCEA Level 3 Physics achievement standards; Scholarship.

Entry Requirement: 14 credits in Level 2 Physics achievement standards and 10 credits in Level 2 Mathematics achievement standards or HOD approval.

Course Content: This course builds on concepts established in Year 12 Physics. Some interesting aspects of the course are ultra sound imaging, Sun's composition through spectroscopy, space shuttle motion, shockwaves, timing circuits, electric fences, gyroscopes, wavelength of laser light and electronic amplifiers. The main areas of study are: rotational motion, simple harmonic motion, waves, electricity and magnetic fields, and modern physics.

13SCI – Science

Qualification: 24 credits in NCEA Level 3 Science achievement standards.

Entry Requirements: 12 credits from a Level 2 Science course (12BIO, 12CHE, 12PHY or 12SCI) or HOD approval.

Course Content: This course offers students a comprehensive study of the Sciences and the skills associated with them, all in the context of life in the modern world. The course includes applications of: Biology (gene expression and gene technology), Chemistry (organic compounds and their uses), Physics (electromagnetic radiation, radioactive decay, sound and ultrasound), geology (geological processes affecting New Zealand) and



recent astronomical discoveries. An extended practical investigation will develop practical scientific skills and a research topic will develop scientific literacy skills.

While this course compliments all the other sciences and can be taken in conjunction with any other, the **maximum** number of Science courses that a student can do at the Year 13 level is **three**.



TECHNOLOGY

	Pages
Year 12	
12AEN Automotive Engineering	72
12FDN Food and Nutrition	72
12GDE Graphics and Design	72
12HOA Hospitality 1	72
12HOB Hospitality 2	73
12PDN Creative Patternmaking and Design	73
12PNG Precision Engineering	73
12TEC Technology	73
12TEF Food Technology	74
12TSA Trade Skills A	74
12TSB Trade Skills B	74
Year 13	
13AEN Automotive Engineering	74
13GDE Graphics and Design	75
13HOS Hospitality	75
13PNG Precision Engineering	75



Technology: Year 12 Course Descriptions

12AEN - Automotive Engineering

Qualification: 19 credits in NCEA Level 2 Automotive Engineering unit standards, which also count towards the National Certificate of Automotive Engineering Level 2.

Entry Requirement: 12 credits in a Year 11 Technology course **and** US 24352 **and** US 24356 Safety (IWP) or HOD approval.

Course Content: Offered in partnership with Manukau Institute of Technology, this internally assessed vocational course is suitable for students who may wish to pursue a career in the automotive industry. This course is based on engineering skills, not motor mechanics or vehicle maintenance.

This Course leads to: 13AEN

Fee: The 2011 fee was \$40.00. This may change.

12FDN - Food and Nutrition

Qualification: 18 credits in NCEA Level 2 Home Economics achievement standards

Entry Requirement: 12 credits in Level 1 Food and Nutrition or HOD approval.

Course Content: This course will give students the opportunity to study foods and food preparation in depth. It includes a study of nutrition for a range of age groups, nutrition for special needs, hygiene and safety and management of resources. Practical activities will provide opportunities to plan, prepare and serve nutritious foods for a variety of people and situations.

This Course leads to: 13FDN & 13HOS – for which the entry requirement is the equivalent of 12 credits in Level 2 Food and Nutrition or Level 2 Hospitality.

Fee: The 2011 fee was \$25.00. This may change. Students may be required to provide some ingredients.

12GDE - Graphics and Design

Qualification: 24 credits in NCEA Level 2 Graphics achievement standards

Entry Requirement: 12 credits in Level 1 Graphics and Design or HOD approval

Course Content: This course covers the skills and processes related to the following areas: Environmental design, Technological design, Media design, Graphical communication. The design process is used as the medium to teach these areas.

This Course leads to: 13GDE – for which the entry requirement is the equivalent of 12 credits in Level 2 Graphics achievement standards.

Fee: The 2011 fee was \$20.00. This may change.

12HO1– Hospitality 1

Qualification: 19 credits in NCEA Level 1 Hospitality unit standards.

Entry Requirement: Open to Year 12 & 13 students who have gained **fewer** than 50 Level 1 credits or HOD approval.

Course Content: In this course, students will develop knowledge and skills associated with the Hospitality and Catering Industry. The unit standards in the course will include the study of preparation, presentation and service of food.

This Course leads to: 12HOS2 – for which the entry requirement is 12 credits in 12HO1.

Fee: The 2011 fee was \$25.00 for each course. This may change. Students may be required to provide some ingredients.



12HO2 – Hospitality 2

- Qualification:** 19 credits in NCEA Level 2 Hospitality unit standards and a Certificate of Achievement.
- Entry Requirement:** Open to Year 12 & 13 students who have gained Level 1 or HOD approval.
- Course Content:** In this course, students will develop knowledge and skills associated with the Hospitality Industry. The unit standards in the course will include the study of preparation, presentation and service of food.
- This Course leads to:** 13HOS – for which the entry requirement is 12 credits in 12HO2.
- Fee:** The 2011 fee was \$25.00 for each course. This may change. Students may be required to provide some ingredients.

12PDN - Creative Patternmaking and Design

- Qualification:** 18 credits in NCEA Level 2 standards
- Entry Requirement:** Open to Year 12 and 13 students who have 12 credits in school-based assessments for Level 1 Technology or Level 1 Art or HOD approval.
- Course Content:** This course is based on practical experiences. It includes study of design and fashion trends, knowledge of patternmaking for original designs and construction techniques used in making clothes. Students will have opportunities to be creative through designing, choosing and using appropriate textiles and making projects using original ideas. Students will need to provide materials and patterns for some major projects.
- Fee:** The 2011 fee was \$20.00. This may change.

12PNG - Precision Engineering - Stage 1

- Qualification:** 20 credits in NCEA Level 2 Engineering unit standards, which also count towards the National Certificate in Manufacturing Processes Level 2
- Entry Requirement:** 12 credits in a Year 11 Technology course **and** US 24352 **and** US 24356 Safety (IWP) or HOD approval
- Course Content:** This is a vocational course for students who may wish to pursue a career in the engineering industry.
- Fee:** The 2011 fee was \$40.00. This may change.

12TEC – Technology

- Qualification:** 20 credits in NCEA Level 2 Technology achievement standards
- Entry Requirement:** The equivalent of 12 credits in school-based assessments for Level 1 Technology. Students considering this course need to be aware that a significant amount of the material covered is of an academic rather than purely practical nature.
- Course Content:** In this course, students will follow action plans from student-developed briefs. They will use them to produce prototype solutions and plans for on-going production. This will involve identifying key stages in investigation design and manufacture. Students **must** be prepared to use a variety of materials in the production of their outcomes. This could include but is not limited to materials such as glass, paper, card, wood, fabric, metal and plastics.
- This Course leads to:** 13TEC - for which the entry requirement is 12 credits in Level 2 Technology achievement standards.
- Fee:** The 2011 fee was \$40.00. This may change.



12TEF – Food Technology

- Qualification:** 18 credits in NCEA Level 2 Technology achievement standards
- Entry Requirement:** 12 credits in school-based assessments for Level 1 Technology or HOD approval
- Course Content:** This course will give students opportunities to use technological practice to study developments in food availability and choice, new product development, packaging and marketing. Students will need to be creative with the production and presentation of a range of food ideas.
- This Course leads to:** 13TEF – for which the entry requirement is the equivalent of 12 credits in Level 2 Food Technology achievement standards.
- Fee:** The 2011 fee was \$20.00. This may change. Students will be required to bring some ingredients.

12TSA and 12TSB – Trade Skills A and Trade Skills B

- Qualification:** 42 credits in NCEA Level 2 Trade Skills Unit Standards. This course will allow students to gain a National Certificate in Building, Construction and Allied Trades, Level 2.
- Entry Requirement:** 12 credits in school-based assessments from a Year 11 Technology course **and** US 24352 (Safety) **and** US 24356 (IWP) or HOD approval.
- Course Content:** These two full-year courses are designed to enable students to learn a variety of skills and processes related to the construction industry. Content covers hand and machine tools, safe working practices and construction of a range of indoor and outdoor furniture.
- This course leads to:** Apprenticeships in joinery, carpentry, cabinet-making, boat-building, plumbing and allied trades within the construction industry.
- Fee:** \$40. This may change.

Technology: Year 13 Course Descriptions

13AEN - Automotive Engineering

- Qualification:** 18 credits in NCEA Level 2 Automotive Engineering unit standards, which also count towards the National Certificate of Automotive Engineering Level 2
- Entry Requirement:** 12 credits in a Year 11 Technology course **and** US 24352 (Safety) **and** US 24356 (IWP) or HOD approval.
- Course Content:** This course continues to build students' knowledge of Automotive Systems. Students will study basic automotive electrical circuits, charging, starting and ignition circuits. They will learn how to service an automotive battery and tune an automotive engine. The unit standards all have both practical and theoretical components.
- This Course leads to:** Further study at MIT to complete the National Certificate of Automotive Engineering Level 2; employment in the automotive trade carrying out minor repairs under supervision.
- Fee:** The 2011 fee was \$40.00. This may change.

13GDE - Design Graphics

- Qualification:** 24 credits in NCEA Level 3 Graphics achievement standards; Scholarship.
- Entry Requirement:** 12 credits in Level 2 Graphics achievement standards or HOD approval



Course Content: This course requires students to initiate a design project based on the needs and requirements of a client in each of the following design areas:

- Architectural or environmental
- Engineering or technological
- Media or technical illustration

Fee: The 2011 fee was \$20.00. This may change.

**13HOS– Hospitality
Qualification:**

14 credits from NCEA Level 2 Hospitality unit standards and 6 credits from Level 3 unit standards which also count towards the National Certificate in Hospitality Level 2.

Entry Requirement: 12 credits in 12HO2 standards.

Course Content: Students will follow the prescribed Hospitality unit standards, which include study of preparation, presentation and service of food, beverage service and customer care. Each unit standard will include practical activity which will be part of the assessment. The Level 3 unit standard for beverage preparation and service is part of a Manukau Institute of Technology Partnership programme.

This Course leads to: Further work or study in the Hospitality Industry

Fee: In 2011 the fee was \$25.00. This may change. Students will be required to provide some ingredients.

13PNG – Precision Engineering Stage 2

Qualification: 20 credits in NCEA Level 2 Engineering unit standards, which also contribute towards the National Certificate in Core Engineering

Entry Requirement: Successful completion of 12PNG **and** HOD approval

Course Content: This course is wholly internally assessed. There is no final examination. Students are given regular feedback in the form of signposting and have reassessment opportunities.

Fee: The 2011 fee was \$40.00. This may change.