

PIOPIO COLLEGE

Course Information

Year 13



This booklet has been put together to help you decide which courses to take in Y13.
It contains an outline of each of the subjects we plan to offer in 2010.

If there are subjects you would like to take that are not shown in this booklet,
please discuss your ideas with Mr Day.

You can get help with your subject choices for next year from your vertical form teacher,
subject teachers, the Careers Adviser (Mr Burnell), and Mrs Draper (Year Leader Y11 - Y13) .

Subject List Y9 - Y13

Core subjects •

Optional subjects ○

	Code	Subject	Y9	Y10	Y11	Y12	Y13
Languages	ENG	English	•	•	•	•	○
	ENA	English (Alternative)			•	•	
	FRE	French	○	○	○	○	○
	MAO	Te Reo Māori	○	○	○	○	○
Mathematics	MAA	Mathematics (Alternative)			•	•	
	MAC	Mathematics with Calculus					○
	MAS	Statistics and Modelling					○
	MAT	Mathematics	•	•	•	•	
Science	AGF	Agriculture and Forestry				○	○
	AGR	Agriculture			○		
	AGH	Agriculture and Horticulture		○			○
	AGS	Agricultural Science				○	
	BIO	Biology				○	○
	CHE	Chemistry				○	○
	PHY	Physics				○	○
	SCI	Science	•	•	•		
Social Science	GEO	Geography			○	○	○
	HIS	History			○	○	○
	SST	Social Studies	•	•			
	TIK	Tikanga-ā-iwi	•				

	Code	Subject	Y9	Y10	Y11	Y12	Y13
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Technology	CAR	Carpentry				○	
	FFT	Food & Fabric Technology	●	○			
	FPR	Food Preparation (City & Guilds)				○	○
	GRA	Graphics	●	○	○		
	HEC	Home Economics			○		
	THM	Technology - Hard materials	●	○	○	○	
	TSM	Technology - Soft Materials			○	○	

Arts	ART	Art	●	○			
	ART	Visual Arts (Level 1)			○		
	MUS	Music	●	○			
	PAI	Painting (Visual Arts Level 2 and 3)				○	○
	PHO	Photography				○	○
	PRI	Print Making (Visual Arts Level 3)					○
	SCU	Sculpture (Visual Arts Level 3)					○

Business and Computing	ACC	Accounting			○	○	○
	BAC	Business Administration & Computing				○	○
	CNC	Computing (National Certificate)				○	○
	ECO	Economics			○	○	○
	INM	Information Management		○	○		

PE and Health	HEA	Health	●	●	●	●	
	PED	Physical Education (advanced)				○	○
	PED	Physical Education	●	●	●		
	REC	Recreation				●	

SOME BASIC INFORMATION TO GET YOU STARTED

NCEA Level 3 is the main qualification for Y13 students.

Students in Y11 are usually working towards NCEA Level 1

Students in Y12 are usually working towards NCEA Level 2

National standards have been set in each area of learning.

There are two types of standards, Achievement Standards and Unit Standards.

When students achieve these standards they earn credits toward their NCEA qualifications.

If you did not gain the 80 credits needed for Level 2 last year, any credits you gain this year count towards completing Level 2. The credits also count for your Level 3.

The National Certificate of Educational Achievement (Level 3)

is awarded to students who gain at least 80 credits;

60 credits must be at Level 3 or higher.

The remaining 20 credits may be from level 2 or higher and may include Level 2 credits gained last year.

There are no compulsory subjects at Level 3.

If you planning to go to university in 2008, you must make sure that you will meet the minimum requirements for University Entrance. (see page 8 for details)

Entry Fees

Entry fees in 2009 were \$75.00

The College collects the fees on behalf of NZQA.

They must be paid in full by the end of Term 2.

Financial assistance may be available for families, if they are in one of these situations

- receive a Social Welfare benefit
- income entitles them to a Community Services Card
- have 2 or more students entering for secondary school qualifications in the same year

NCEA LEVEL 3 COURSE

Each student takes 5 subjects

The option structure for Y13 will be developed once we know students' subject preferences.

GATEWAY

Piopio College runs a Gateway programme. Gateway offers students an opportunity to experience workplaces first hand while engaging in structured workplace learning. Students have been placed in over 50 industries and hundreds of businesses around New Zealand.

Gateway helps to make learning relevant and to broaden students' options by offering them both traditional and workplace learning.

Students pursue individual learning programmes, which allow them to gain new skills and knowledge in a workplace in their local community. The learning is hands-on and practical. Students will be assessed in the workplace for unit and achievement standards which contribute to the National Certificate of Educational Achievement (NCEA), as well as industry specific qualifications.

The work placements can be very flexible to allow timetables to be managed for students, employers and the school. Possible options that have worked in other schools include: holidays, weekends, after school all year, 1 day per week. Students are currently working in a wide variety of industries, the most popular Gateway options to date have been; hospitality, automotive, retail, tourism, engineering and building.

See Mr Burnell or Mrs L Rauputu for more information about the Pre-employment course and Gateway.

MOTIVATED HORIZONS

This is a Piopio College initiative designed to expand the career, qualifications and life outlook for our students.

Whakaara kia Mataara (Reaching for the Greatest Heights)

Piopio College wants to offer greater support to our Year 13 students before they leave school. The support will be in the form of inspirational and motivational presentations from local entrepreneurs and business people and academic mentoring / coaching. This support will be on-going throughout the year. All Year 13 students going on to further study will also be eligible for scholarships / prizes at the end of the year. The eligibility criteria for this money are likely to include

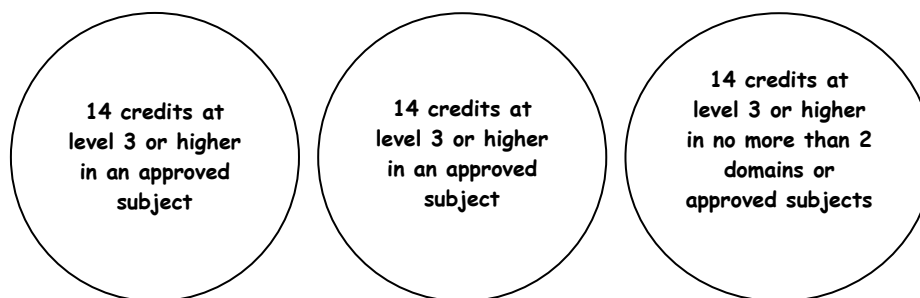
- Good attitude.
- Incident free year
- Solid academic performance
- Service to the school and community
- Good attendance

If you would like more information about Motivated Horizons, please speak to Mr Day.

UNIVERSITY ENTRANCE STANDARD

A person shall be qualified for entrance to a university in New Zealand if he/she has obtained:

- a minimum of 42 credits at level 3 or higher on the National Qualifications Framework, including a minimum of 14 credits at level 3 or higher in each of two subjects from an approved subject list, with a further 14 credits at level 3 or higher taken from no more than two additional domains on the National Qualifications Framework or approved subjects
- a minimum of 14 credits at level 1 or higher in Mathematics or Pangarau on the National Qualifications Framework
- a minimum of 8 credits at level 2 or higher in English or Te Reo Māori; 4 credits must be in Reading and 4 credits must be in Writing.



14 credits in Mathematics at level one or higher
4 credits at level two or above in Reading
4 credits at level two or above in Writing

It's important to remember that these are the minimum requirements for entry.

Each university has specific entry requirements for each course.

Check with Mr Burnell early in the year, so you can be certain that you are taking the right combination of Y13 subjects to gain entry to your chosen course in 2008.

Y13 COURSE DETAILS (courses arranged in alphabetical order)

BIOLOGY NCEA L3

This subject is suitable for students preparing to study Biology at University and those who are interested in Biology, whose formal education in Biology will go no further.

Content

AS	Topic	Credits	Internal or External
3.1	Carry out an investigation into an aspect of the ecological niche of an organism with guidance.	5	Int
3.2	Research a contemporary biological issue	3	Int
3.3	Describe gene expression	4	Ext
3.4	Describe animal behaviour and plant responses in relation to environmental factors	4	Ext
3.5	Describe patterns of evolution	2	Ext
3.7	Describe trends in human biological and cultural evolution	3	Ext

Assessment Methods

Internal assessment of AS 3.1 and 3.2

External examinations for AS 3.3, 3.4, 3.5, 3.6 and 3.7

Students must provide

Interest and enthusiasm for Biology

A4 refill for theory notes. 1L4 exercise book (practical diary)

Course costs

Y13 Biology Course Manual (ordered through school, approx \$25)

Field trip to Hamilton Zoo (allow \$15)

Previous Study/ Entry requirements

Year 12 Biology is usual.

Any student who is interested may enter the course after consulting Mr Day

Next Step

Tertiary course

CARPENTRY (STAR)

This course will include modules from the Building and Construction Industry Training Organisation.

With the very high demand for people to enter these careers, the course will teach the basics of carpentry and building construction. It includes theory lessons and practical work.

Students will have the opportunity to sit Building and Construction Industry Training Organisation Carpentry Unit Standards, so gaining some industry qualifications while still at school.

The following units have been covered with previous groups

Health and Safety with tools

Construct garden furniture

Construct a basic residential fence

Construct a timber framed building

Complete minor concrete works - paths

Laying paving blocks

Construct basic retaining walls

The following standards are offered in 2008 for L3 Chemistry

Internal assessments

Standards can be selected from the following:

Standard	Topic	Credits
AS 90695	Determine the concentration of an oxidant or reductant by titration	2
US 6343	Explain periodic trends in the properties of elements and compounds	4
US 6345	Analyse spontaneous redox reactions	4
US 8948	Calculate enthalpy changes	2
US 8949	Characterize compounds of acid - base solutions	4

External assessments

Standards can be selected from the following :

Standard	Topic	Credits
AS 90696	Describe redox processes	3
AS 90780	Describe properties and particles and thermo-chemical principles	5
AS 90698	Describe aspects of organic chemistry	5
AS 90700	Describe properties of aqueous solutions	5

Students are expected to follow a course of at least 24 credits through the year.

Equipment requirements and Costs

Refer to the Year 11-13 Science Student's Handbook
Y13 Chemistry Course Manual
Field trip

Entry Requirements

Generally, the minimum requirement is 50% of the credits in NCEA L2 Chemistry
Please make a point of speaking to Mr Carson if you have any questions regarding L3 Chemistry

COMPUTING (NATIONAL CERTIFICATE LEVEL 3)

This certificate follows on from the Level 2 certificate. It is designed for students wishing to further develop their computer skills. This programme is a qualification of national standing, requiring the maintenance of a minimum standard throughout the country.

Fifty-two credits are required for certification, twelve credits are the compulsory units (2780 and 2781, see NCC Level 2), and twenty credits are from a computing sub field, of which at least 30 credits must be either compulsory or optional computing units. The compulsory and optional Level 3 computing units that will be offered during the 2005 school year are listed below:

Unit Number & Title

2780	Operate and maintain a personal computer system	9
2781	Manage and protect data in a personal computer system	3
2785	Produce and use Computer Spreadsheets for Business Use	5
2787	Create and use a Computer Flatfile Database for Business Use	5
2789	Produce Desktop Published Documents for Business Use	5
5950	Investigate the use of computer technology in an organisation	6
5940	Produce a presentation	5
2797	Demonstrate a Knowledge of Computer Networks	5
		Total Credits: 43
112	Produce information using Word Processing Functions	5

The remaining 4 credits can be made up from any Level 3 domain on the National Framework.

Assessment Methods

Preparatory practical exercises and written theory notes

Assignments (Written and Practical)

Observation

Final Assessment to achieve the Unit Standard (Practical, Written and Observation)

Course Materials

1 A4 lever arch file

Course Fee

\$15

Pre-requisites

Achievement of the National Certificate in Computing Level 2 or consultation with the Computing Teacher. However it will be recommended that the student should first complete Unit Standards 111, 2784, 2786, and 2788 before electing to do this Certificate.

ENGLISH

NCEA Level 3 English

Credits	21
Internal	12
External	9

The course focuses on the writing and speaking skills required for students moving on to further study or the workplace.

Students study a novel, a film and a Shakespeare play. They also present a seminar using a variety of media.

Prerequisites

Have completed an English Course at level 2.

Assessment Methods

Internal and External Achievement Standards.

Level 3 Alternative English (only offered if there is sufficient demand)

Credits	8+
Internal	8+
External	0

Students would focus on Level 2 and 3 Units aiming to satisfy the requirements of future employment and study.

The course includes

- NZQA L2 Restaurant Service Unit Standards
- NZQA L2 Food Safety Unit Standards
- NZQA L2 and L3 Unit Standards in Hospitality
- NZQA L2 and L3 Unit Standards in Home and Life Sciences

Outcomes

The US L2 and L3 course provides a broad introduction to the theory and practical sides of food preparation. It aims to develop a student's ability to apply knowledge of nutrition to their everyday lives. Students select from a range of standards offered both in hospitality and in Home and Life Sciences. Up to 45 credits are available.

Course Content

This is an internally assessed course. Students select from a range of standards offered both in hospitality and in Home and Life Sciences. Up to 45 credits are available.

The Restaurant Service course provides the student with the opportunity to gain experience in the catering industry. The written component is delivered at Piopio College and the practical component at Waiariki Polytechnic in Rotorua. This takes place at the end of the year when the group will stay in Rotorua for six days to complete the practical assessment.

Cost

Students must be prepared to provide themselves with the necessary cooking ingredients.

Subject fee \$75.00

GEOGRAPHY

Geography is the study of the environment as the home of people. It looks at how humans modify and influence the environment and how nature affects humans. This course follows on from the level two geography course, however there are no pre-requisites. If you enjoyed Social Studies or Science then you should find Geography interesting.

Topics that are studied during the year include Natural processes in the Tongariro Volcanic centre, Techniques for fieldwork, Tourism as a cultural process.

Year 13 Geography Assessment Programme

In geography this year you will be working towards gaining Level 3 credits for the National Certificate of Educational Achievement. The work you do throughout the year will be assessed in two different ways:
Internal assessment - assignments and activities carried out throughout the year
External assessment - an exam sat at the end of the year.

The year 13 geography programme is assessed against seven achievement standards. Each has a credit weighting. When you gain credit for an achievement standard the credits contribute to your NCEA. You can also gain different grades for each achievement standard: **Achieved the standard, Achieved the standard with Merit, Achieved the standard with Excellence**. The grade you achieve is determined by the quality of your work as measured against national standards.

Outlined below are the Level 3 geography achievement standards, the credit weighting of each and how they are assessed.

AS	Title	Credits	Internal or External
3.1	Analyse a geographic environment, focusing on the interacting natural processes	3	Ext
3.2	Analyse a cultural process	3	Ext
3.3	Analyse the role of geography in planning and decision-making	3	Int
3.4	Select and apply skills and ideas in a geographic context	6	Ext
3.5	Carry out geographic research with consultation	3	Int
3.6	Analyse a contemporary geographic issue and evaluate courses of action	3	Int
3.7	Analyse a global geographic study	3	Int

You will be advised well in advance when each assessment will be carried out and what the assessment policies of the school and this department are.

Students to supply: Ringbinder, A4 refill, WA4 exercise book
Coloured pencils, Metric ruler
Skills book (purchased from College)

MATHEMATICS WITH CALCULUS

This course is especially suitable for students wishing to undertake further studies in areas like Physical Sciences, Engineering, and Electronics.

Students taking this course will be enrolled with the Correspondence School.

Modules include:

AS	Topic	Credits	Internal or External
3.1	Derivatives	6	Ext
3.2	Integrals	5	Ext
3.3	Differential equations	2	Int
3.4	Complex numbers	4	Ext
3.5	Graphs and Conic sections	3	Ext
3.6	Equations involving trig functions	4	Int

Assessment Methods

L3 Achievement Standards

Students must provide

Pen, pencil, ruler, refill, folder, scientific calculator.

Previous study/ Entry requirements

Y12 Maths

Good grades in L2 Maths Achievement Standards. Merit in Algebra and Calculus.

Next Step

Tertiary study

PHYSICAL EDUCATION (Advanced) NCEA L3

This advanced, academic and practical course will be modified from previous years to accommodate the demands of NCEA level 3 assessments.

Following a revision of Training Principles and Methods, a full battery of tests will be conducted on 9 of the Fitness Components. Students will then plan and implement an 8-10 week exercise programme based on their personal definition of physical wellbeing. On completion of the programme a self review would be undertaken.

The inter-relationship between physical well being and body function is also examined in depth covering topics such as posture, flexibility, hazardous exercises and cardio-vascular disease.

There will also be an examination of a current physical activity, event or trend that impacts on New Zealand society.

In the Module relating to Physical Activity the students will gain data on their current performance levels then plan and evaluate improvements in a skill learning programme (related to fencing).

There may also be opportunities to demonstrate performances against National Standards or take action to influence the participation of others in physical activity.

Assessment Methods

The Course in 2008 will be fully Internally Assessed with an intention to target Achievement Standards PE 3.1, 3.2, 3.3, 3.4 & 3.5. This will give students the opportunity of achieving 19+ credits at Level 3.

Previous study/ Entry requirements

No prerequisites are required however experience and success with Level 2 NCEA (not necessarily PE) is desirable. Full attendance is necessary.

Next Step

Level 3 PE is an appropriate pathway leading into Tertiary courses in PE / Sport / Leisure.

Apart from contributing to personal present and future lifestyles, Level 3 PE would also be of benefit in "people orientated" occupations.

The following Standards will be offered in 2008 if there is sufficient demand from students.

Internal assessments

Standard	Topic	Credits
AS 90518	Carry out a practical physics investigation with guidance that leads to a mathematical relationship	4

External assessments :

Standard	Topic	Credits
AS 90520	Demonstrate understanding of wave systems	4
AS 90521	Demonstrate understanding of mechanical systems	6
AS 90522	Demonstrate understanding of atoms, photons and nuclei	3
AS 90523	Demonstrate understanding of electrical systems	6

Equipment requirements

Refer to the Year 11-13 Science Student's Handbook.

Costs

Refer to the Science Students Handbook.
Y13 Physics Course Manual.
Field trip.

Entry requirements

Refer to the Science Students Handbook.

Generally, the minimum requirement is 50% of the credits in NCEA L2 Physics and L2 Mathematics. Please make a point of speaking to Mr Carson if you have any queries regarding L3 Physics.

L2 and L3 Physics classes will be timetabled together in 2010.

STATISTICS AND MODELLING

This course is suitable for students who may wish to continue further studies in mathematics and subjects where statistical knowledge is helpful e.g. Business studies, Economics, Social Sciences, Biological Sciences.

Modules include

AS	Topic	Credits	Internal or External
3.1	Time Series	3	Int
3.2	Confidence Intervals	3	Ext
3.3	Probability	3	Ext
3.4	Solving equations	4	Ext
3.5	Statistics investigation	3	Int
3.6	Probability Distribution	4	Ext
3.7	Curve fitting	2	Int
3.8	Linear Programming	2	Ext

Assessment Methods

L3 Achievement Standards

Students must provide

Pen, pencil, ruler, refill/folder, graphics calculator
Statistics work book (cost \$20 through school)

Previous study/ Entry requirements

Y12 Maths
Good grades in L2 Achievement Standards

Next Step

Tertiary study

This course aims to develop a student's ability to use sound textile construction principles and good design appreciation to create solutions to their own and others design briefs in a way that challenges their practical ability and potential.

The course is aimed at students that are enthusiastic and enjoy designing and sewing and is assessed using standards based assessment.

The programme offers students the opportunity to gain credits towards NCEA Level 3.

This may be achieved through

- Textile Unit Standards (23 credits) which are internally assessed.

Students need to supply

pens and pencils

A4 drawing pad and envelope

Coloured pencils

Fabric to make the items that the student has designed.

Next Step

VISUAL ARTS NCEA L3

Students get to specialise in either Design or Printmaking or Painting.

The aim of this course of study is for students to develop an understanding of their chosen established practice and to apply and extend this knowledge within their own work.

Students will research established and contemporary practice to extend and develop a systematic approach to learning. This will take place through a range of tasks (research, drawing, annotation, sequential studies, small and finished works) and will demonstrate the development, clarification and resolution of pictorial ideas.

The following Standards will be offered:

Unit	Title	Credits	Assessment
3.1	Research and analyse approaches with established design, painting and printmaking practice	4	Internal
3.2	Investigate and use ideas and methods in the context of a drawing study in (painting, printmaking, design).	6	Internal
3.3	Produce original work within (painting, printmaking, design) to show extensive knowledge of art making methods and ideas.	14	External

Students must provide

A3 blank spiral bound journal

A3 Art wallet

A3 drawing pad

Course fee

The course material fee of \$75 covers all materials that each discipline requires, including a basic drawing kit.

Previous study/Entry requirements

16 credits in NCEA Level 2 Visual Art

Next Step

Tertiary Education

The aim of study at this level is to further develop understanding of photographic procedures and practices and to apply and extend these in individual performance.

Students will use research of established practice to extend ideas and develop a systematic approach to learning in Photography. Students work towards producing an original body of work in which they generate, analyse and resolve ideas.

Assessment Methods

Unit	Title	Credits	Assessment
3.1	Research an art-making tradition and discuss its links to relevant recent photography practice.	4	Internal
3.2	Investigate and use ideas and methods in the context of a drawing study in photography.	6	Internal
3.3	Produce original work within photography to show extensive knowledge of art making methods and ideas.	14	External

Students must provide

35mm manual SLR camera
A3 blank spiral bound journal
A4 file box

Course fee

The course material fee is \$300. No refunds will be given and no printing materials or film will be supplied until payment of course fees has been arranged.

Previous study/Entry requirements

16 credits in NCEA L2 Visual Arts Photography

Next Step

Tertiary Education