

PIOPIO COLLEGE

Course Information

Year 12



This booklet has been put together to help you decide which courses to take in Y12.
It contains an outline of each of the subjects we plan to offer in 2010.

You can get help with your course choices for next year from 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
--	------	---------	----	-----	-----	-----	-----

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 2 is the main qualification for Y12 students.

Students in Y11 are usually working towards NCEA Level 1
Students in Y13 are usually working towards NCEA Level 3

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 1 last year, any credits you gain this year count towards completing Level 1. The credits also count for your Level 2.

The National Certificate of Educational Achievement (Level 2)
is awarded to students who gain at least 80 credits;

60 credits must be at Level 2 or higher.
The remaining 20 credits may be from any level and may include Level 1 credits gained last year.

English is compulsory.
We also regard **Mathematics** as compulsory unless there are special circumstances.

University Entrance requirement

Students who are planning to go on to university at the end of Y13 need

8 credits (or more) 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 at level 1 or higher in Mathematics.

If you complete these requirements as a Y12 student, it's one less pressure next year.

NZQA 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 2 COURSE

Each student takes six subjects

- ❖ English
- ❖ Recreation and Health
- ❖ 4 other subjects. One of these should be Mathematics, unless there are special circumstances

The option structure for Y12 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 Mrs L Rauputu for more information about Gateway.

Y12 COURSE DETAILS (courses arranged in alphabetical order)

BIOLOGY NCEA L2

This course introduces the study of Biology as a separate science.

The following Standards will be offered.

Internally assessed Achievement Standards

AS	Topic	Credits
90457	Carry out a biological investigation with supervision	4
90460	Investigate an interrelationship or pattern in a population or community	3

Internally assessed Unit Standard

US	Topic	Credits
8928	Use a microscope to investigate biological material	3

Externally assessed Achievement Standards (examined by NZQA in November)

AS	Topic	Credits
90459	Describe concepts and processes that can lead to genetic variation and change	3
90461	Describe concepts and processes relating to ecology	2
90462	Describe diversity in the structure and function of animals	3
90463	Describe diversity in the structure and function of plants	3
90464	Describe cell structure and function	3

Optional research (students may select one of these internally assessed Achievement Standards)

AS	Topic	Credits
90458	Research an applied biology technique	2
90465	Describe the impact of human activities on an ecosystem	2

Students must provide

An interest and enthusiasm for Biology
A4 refill (theory notes), 1L4 exercise book

Course costs

Field trip bus fare \$3.
Y12 Biology Course Manual (ordered through school - approx \$22)

Previous study/ Entry requirements

NCEA L1 Science
Other interested students may be considered for the course after consulting Mr Day.

Next Step

NCEA L3 Biology

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 may be offered in 2010 for Y12 Chemistry

Internal assessments

Standards can be selected from the following:

Standard	Topic	Credits
AS 90305	Carry out qualitative analysis	3
AS 90306	Carry out an acid-base volumetric analysis	3
AS 90763	Solve simple quantitative chemical problems	2
US 6332	Appreciate how chemical substances meet the needs of society	3
US 6338	Characterise behaviour of weak and strong acids and bases	3
US 8941	Carry out gravimetric or colorimetric analysis	2
US 8942	Nature of chemical substances at equilibrium	2
US 8943	Investigate enthalpy changes of chemical reactions	2
US 8946	Characterise properties and reactions of organic families	5
US 8947	Characterise redox reactions	3

External assessments

Standards can be selected from the following :

Standard	Topic	Credits
AS 90308	Describe atomic structure and bonding in substances	4
AS 90309	Describe structural formula and reactions of organic compounds	4
AS 90310	Describe thermo-chemical and equilibrium principles	5
AS 90311	Describe redox reactions	4

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

Entry Requirements

- Generally, the minimum requirement is 50% of the credits in NCEA L1 Science
- Please make a point of speaking to Mr Carson if you have any questions regarding L2 Chemistry

ENGLISH	NCEA L2
---------	---------

English

Credits	21
Internal	9
External	12

This course offers a full range of Achievement Standards at Level 2. Students will deliver a speech in class, and read a variety of texts including a Shakespeare play. Students must opt for all the Achievement Standards offered in that year. The Wide Reading unit standard will be offered as an option.

Prerequisites

15 English credits at Level 1

ALTERNATIVE ENGLISH	NCEA L2
---------------------	---------

Credits	8+
Internal	8+
External	0

This course will offer Standards at level 1 and 2. The aim is to offer enough credits for those students who wish to satisfy the minimum requirement for University Entrance. Some students may be offered the chance to sit some L1 external papers.

Prerequisites

Have completed a year of English at Level 1, or with the permission of the HOD.

Assessment Methods

Internal Achievement and/or Unit Standards at level 1 and 2.

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 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 one 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 the Tongariro National Park, Amazonia, Singapore, Auckland, Tanzania and USA.

Year 12 Geography Assessment Programme

In geography this year you will be working towards gaining Level two 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 12 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 2 geography achievement standards, the credit weighting of each and how they are assessed.

Number	Title	Credits	Assessment Mode
2.1	Explain natural landscapes	3	External
2.2	Explain urban settlements	3	External
2.3	Explain disparities in development both within and between countries	3	External
2.4	Apply skills and ideas, in a geographic context	4	External
2.5	Conduct guided geographic research - fieldwork	5	Internal
2.6	Examine a contemporary geographic issue	3	Internal
2.7	Explain a global study	3	Internal

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)

This course is designed for students with average and above skills in Maths and will provide the necessary foundations for any student wishing to take an NCEA L3 Maths course the following year.

Modules include

AS	Topic	Credits	Internal / External
2.1	Algebra	4	Ext
2.2	Graphs	3	Ext
2.3	Calculus, Derivatives and Integrals	4	Ext
2.4	Coordinate geometry	2	Ext
2.5	Statistics, sample and inference	3	Int
2.6	Probability, simulation and normal distribution	2	Int
2.7	Sequences	2	Ext
2.8	Trigonometry problems	2	Int

Assessment Methods

L2 Achievement Standards

Students must provide

Pen, pencil, ruler, SMB 5mm Quad exercise book, scientific calculator (graphic calculators are an advantage and are recommended for students continuing in Maths).
Sixth Form Mathematics Workbook (available from College) \$20

Previous study/ Entry requirements

NCEA L1 with good passes including Algebra 1.1 and Graphs 1.8
Students find this course very difficult unless they have a reasonable level of algebra skills.

Next Step

NCEA L3 Maths

Alternative Mathematics is a course for students who will find the NCEA L2 course too difficult. It will provide the opportunity for students to continue their Maths education and allow them to appreciate and feel confident with Maths in everyday practical situations.

The course will be tailored to the ability of the group. Students will work towards obtaining some Unit Standards from the National Qualifications Framework (mainly Level 1).

Assessment Methods

Unit Standards

Students must provide

Pencil, ruler, SMB 5mm Quad exercise book, calculator

Previous study/ Entry requirements

Y11 Alternative Maths

Did not pass or struggled with NCEA L1 Achievement Standards

PHYSICAL EDUCATION (ADVANCED) NCEA L2

This advanced, academic course covers the theoretical and practical aspects of P.E.

The year would begin with a study of Functional Anatomy followed by an emphasis on Exercise Physiology and participation in a modified decathlon.

The second term emphasis would be on the use of Principles of Learning and Sports Psychology to gain proficiency in a “ Novel” skill. Exercise Physiology along with experiencing then using the Principles and Methods of Training.

A short duration exercise programme based on the Rec. Centre will be undertaken in Term 3 as part of a familiarisation and experience of using the Principles and Methods of Training.

A study on the overview of the role of Sport in Society will be followed by the student examining an Issue relating to PE or Sport.

Throughout the year, where appropriate, various components of fitness will be tested and analysed.

Students will also be required to demonstrate performance in contrasting physical activities (one of which is indoor hockey) and also apply safety management procedures. A knowledge in aspects of sports medicine and skill analysis is also gained.

Should time allow then Biomechanics will be studied.

Students may be required to gain experience in the running of selected College Sporting events as well.

This course should appeal to those who not only wish to pursue a career in P.E or Sport but also to those who desire to apply a better understanding of their bodies to present and future lifestyles/activities.

Assessment Methods

A combination of Level 2 Achievement and Unit Standards will be undertaken.

Experience in 2007 has shown that while 24 credits are available it is likely that there is only time for 21 to be attempted.

Students must provide

Foolscap file box, refill.

Y12 Physical Education workbook (cost approx \$26.00)

Previous study/ Entry requirements

Students must have demonstrated the ability to achieve credits at Level 1 before considering participation in this subject.

The Units relating to Principles and methods of training, Skill learning and Sports Psychology, Practical skill performance and Safety require logged participation and involvement. Absence on non medical grounds would jeopardise completion of these units so attendance is essential.

Next Step

NCEA L3 course

The following Standards are offered in 2008

Internal assessments

Standard	Topic	Credits
AS 90252	Take measurements of physical quantities and analyse data graphically to determine a relationship	4
AS 90253	Report on the physics of an idea or application and its significance	2

External assessments

Standard	Topic	Credits
AS 90254	Demonstrate understanding of waves	4
AS 90255	Demonstrate understanding of mechanics	6
AS 90256	Demonstrate understanding of atoms and radioactivity	2
AS 90257	Demonstrate understanding of electricity and electromagnetism	5

Equipment requirements

Refer to the Year 11-13 Science Students Handbook.

Costs

Refer to the Science Student's Handbook.

Y12 Physics Course Manual.

Field trip.

Entry requirements

Refer to the Science Student's Handbook.

Generally, the minimum requirement is 50% of the credits in NCEA L1 Science and L1 Mathematics.

Please make a point of speaking to Mr Carson if you have any queries regarding L2 Physics.

L2 and L3 Physics classes will be timetabled together in 2008.

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 2.

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

NCEA Level 3

TECHNOLOGY HARD MATERIALS

Technology Hard Materials is a creative, practical, technical subject centred on project work in school workshops. Students have the opportunity to pursue their interests in designing and making products and, at the same time, develop further their creative potential through design and craftsmanship. Having to communicate their ideas with clarity and precision will mean that students will be stimulated to draw upon and enhance their skills in language and drawing. They will be expected to research information and conduct investigations in technology and design.

The programme offers students the opportunity to gain up to 21 credits towards NCEA Level 2. This may be achieved through

- Technology Achievement Standards, both internally and externally assessed and / or
- Furniture / Building Industry Unit Standards which are internally assessed.

NEW for 2008

Students may also study for the National Certificate in Electrotechnology (NCET level 2) which enables them to design, build and test electronic and robotic systems

Students to supply

pens and pencils,

A3 drawing pad and envelope

lined A4 refill.

A charge is made for materials used during the course.

Next step

Technology L3 or

Industry Training Organisation Qualifications - Carpentry Unit Standards if numbers are sufficient.

At this level, Visual Arts is still a broad-based subject including design, printmaking and painting with a strong emphasis on drawing. Students study and apply the underpinning procedures and processes within these disciplines. They relate all their “drawing in” to that of an established artist or genre and engage in critical evaluation.

This course allows students to select and make an informed choice from the three disciplines offered at Year 13.

The following Standards will be offered:

Unit	Title	Credits	Assessment
2.2	Generate and develop ideas using drawing processes and procedures in design practice.	6	Internal
2.2	Generate and develop ideas using drawing processes and procedures in printmaking practice.	6	Internal
2.3	Produce a body of work within painting to show understanding of art-making methods and ideas.	12	External

Students must provide

A4 blank spiral book
A3 Art wallet
A3 drawing pad

Course Costs

The course materials fee of \$65 covers all materials needed for the different Achievement Standards, including a basic drawing kit.

Previous Study/Entry Requirements

12 credits in NCEA L1 Visual Arts
Other interested students may be considered for the course after consulting Miss Heath.

Next Step

NCEA L3 Painting / Design / Printmaking

VISUAL ARTS (PHOTOGRAPHY) NCEA L2

Photography at this level is a combination of both practical and research components in which students will develop an understanding of photographic concepts, procedures and processes. Students will develop an awareness of pictorial issues in photographic practice through research, critical writing and discussion. Students in their practical work will generate and further extend ideas through independent research. Students are required to relate their practical exploration of ideas to that of a contemporary and established photography practice.

This course is the foundation for Photography at NCEA Level 3 or tertiary.

The following Standards will be offered:

Unit	Title	Credits	Assessment
2.1	Research information, methods and ideas in the context of a drawing study in photography.	6	Internal
2.2	Generate and develop ideas using drawing processes and procedures in photography practice.	6	Internal
2.3	Produce a body of work within photography to show understanding of art-making methods and ideas.	12	External

Students must provide

35mm SLR camera (must have a manual function)
A4 blank spiral bound journal
A4 file box

Course fee

The course materials fee for the year is \$250.00

Previous Study/Entry Requirements

Some Visual Arts background is helpful but not essential.

Next Step

NCEA L3 Photography