



Blue Mountain College

Senior Courses 2025

Course Information for Students
who will be in Years 11, 12 or 13 in 2025



***He waka kore hoe
He tangata kore huarahi
A waka without a paddle is like a person without direction***

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Making Choices and Decisions

This booklet provides a guide for planning your course for next year and into the future. Today's society is changing rapidly and so are the range and requirements of careers. It is important to prepare yourself by making choices that are as wide as possible. To do this you need to follow a few guidelines:

- Keep your options open – choose a spread of courses.
- Do something you like and in which you are interested.
- Do something you know you are good at.
- Discuss your options with your parents, teachers, and Dean.
- Consider what you will be studying in the future.
- You may have a career in mind. Check that you are on the right path by talking to Mrs Venz.

Procedure:

1. Read the Senior Course Information Booklet.
2. If you have any questions about a course or you are uncertain about your ability to complete the year's work, talk to the teacher in charge of the course or Mr Murrell.
3. Check the prerequisites for courses you may wish to study. Make sure that you meet the requirements.
4. Check that the course leads to the path you may wish to follow in the future, especially if you wish to go to University where admission restrictions may apply and ranked results may be used (see page7)
5. Check that you can comply with any special features of the course ie costs, fieldwork etc.
6. Read the information section that applies to your year level. This appears before the list of courses on offer at that level.
7. Take your option sheets to the teachers in charge of your option choices_ _
a to sign and then hand in by September 26.

Points you need to be aware of:

- Not all courses will run. This will depend on numbers and staffing available.
- It is important to remember that we do our best to meet your choices, but this is not always possible. Some students will have course clashes and will need to select alternative courses.
- Mr Murrell will advise you if you are required to make an alternative course choice.

Courses Likely to be Available in 2025

The availability of courses is subject to having sufficient student numbers to have a class.

Subject	NCEA Level 1	Pg No.	NCEA Level 2	Pg No.	NCEA Level 3	Pg No.
Accounting	++		++		*	
Agribusiness			✓	27	✓	45
Agriculture	✓	13	✓	28		
Art	✓	14	✓	29	✓	46
Biology			✓	30	✓	47
Chemistry			✓	31	✓	48
Commerce	✓	14				
Design and Visual Communication	✓	15	✓	32	*	59
Digital Technologies	✓	16	✓	33	✓	50
Economics			✓	34	✓	51
English	✓	18	✓	35	✓	52
Food & Nutrition	✓	19	✓	36	✓	53
Gateway			✓	11	✓	11
Geography					✓	57
Historical & Geographic Studies	✓	20	✓	37		
History					✓	55
Mathematics	✓	21	✓	38		
Maths with Calculus					✓	56
Maths with Statistics					✓	57
Physical Education	✓	22	✓	39	✓	58
Physics			✓	41	✓	59
Science	✓	23	✓	42		
Te Reo Maori	*		*		*	
Te Reo Rangatira			*			
Construction and Mechanical Technologies (Workshop)	✓	24	✓	43	✓	60
Southern Secondary Tertiary Pathways			✓	11	✓	11

* Denotes that the course is likely to be delivered by the Correspondence School, Te Kura.

++ Denotes that the course is likely to be delivered by NetNZ.

SENIOR QUALIFICATIONS

NCEA: National Certificate of Educational Achievement

HOW NCEA WORKS:

- The National Certificate of Educational Achievement (NCEA) is the main qualification available for secondary school students in New Zealand. Standards that secondary school students achieve can be used as building blocks for other qualifications.

NCEA is recognised by employers and is used for selection by universities and polytechnics both in New Zealand and Overseas.

- Each year students study a number of courses or subjects. In each course, skills and knowledge are assessed against a number of standards.
- Schools use a range of internal and external [assessments](#) to measure how well students meet these standards. There are two types of standards, [Achievement Standards](#) and **Unit Standards**.
- Unit Standards (US) are internally assessed at school by teachers or in industry settings. Students either get:
 - Achieved (A) for meeting the criteria of the standard
 - Not achieved (N) if a student does not meet the criteria of the standard
 - *some Unit Standards are now graded as below but do not count for endorsements.
- Achievement Standards (AS) can be internally assessed at schools by teachers or externally assessed at the end of the year through exams or portfolios of work marked by NZQA. Commonly, students will be assessed using both internal and external assessment. For achievement standards, students can get:
 - Excellence (E) for outstanding performance
 - Merit (M) for very good performance
 - Achieved (A) for a satisfactory performance
 - Not achieved (N) if students do not meet the criteria of the standard
- When a student achieves a standard, they gain a number of credits. Students must achieve a certain number of credits to gain an NCEA certificate.

Credits required for a certificate:	
Level 1 60 credits at Level 1	Along with 20 co-requisite literacy and numeracy
Level 2 80 credits	At least 60 credits from Level 2 + 20 credits from Level 1 + Level 1 Literacy and Numeracy
Level 3 80 credits	At least 60 credits from Level 3 + 20 credits from Level 2
- There are three [levels of NCEA certificate](#) depending on the difficulty of the standards achieved. In general students work through Levels 1 to 3 in Years 11 to 13 at school.

Recognising High Achievement

CERTIFICATE ENDORSMENT

Certificates can be “endorsed” to reflect high achievement in a significant number of standards. Students will gain a Certificate Endorsement if they gain:

- 50 credits at Excellence = **NCEA with EXCELLENCE**
- 50 credits at Merit (or Merit and Excellence) = **NCEA with MERIT**

COURSE ENDORSEMENT:

A course endorsement provides recognition for a student who has performed exceptionally well in an individual course.

Students will gain an endorsement for a course if, in a single school year, they achieve:

- 14 or more credits at Excellence = **course with EXCELLENCE.**
- 14 or more credits at Merit = **course with MERIT.**
- 14 or more credits at Achieved = **course with ACHIEVED**

To be eligible for Course Endorsement, at least 3 of these credits must come from externally assessed standards and at least 3 from internally assessed standards (Physical Education and Level 3 Visual Arts are exempt from needing 3 credits to be externally assessed).

Awards with endorsements will be shown on a student’s [Record of Achievement](#).

SCHOLARSHIP:

New Zealand Scholarships

The characteristics of Scholarship are outlined below:

- Scholarship is a monetary award to recognise top students.
- Scholarship awards do not attract credits or contribute towards a qualification.
- Scholarships awarded will be placed on a student’s Record of Learning.
- Scholarship assesses knowledge and skills and their application, building on, and in advance of NCEA Level 3.
- Assessment will be entirely through external end of year examinations and/or submissions of student work for external assessment
- Two levels of achievement can be gained – Scholarship and Outstanding Performance

Entry to scholarship requires the approval of the Principal on the advice of the relevant HOD.

As part of the NetNZ cluster of schools Blue Mountain College students can take part in the Scholarship Mentoring Programme. Students wishing to enter for scholarship can meet weekly from Term 3 onwards with a tutor and other students in that subject via video conference. These tutorials are aimed at providing support and guidance for students at this level of study and allow students to work collaboratively.

ENTRANCE TO UNIVERSITY:

To gain entry to university students must achieve at least:

- Three subjects - at **Level 3 or above**, made up of:
 - 14 credits each, in three approved subjects
 - Literacy – 10 credits at **Level 2** or above made up of:
 - 5 credits in reading

- 5 credits in writing
- Numeracy - 10 credits at **Level 1 or above**, made up of:

Approved Subject List

The list of subjects approved by NZQA, and available to students at BMC, for the purposes of entrance to University according to the rules above is:

➤ Approved courses

Art	*History of Art
*Accounting	Calculus
Agribusiness	Statistics
Agriculture and Horticulture	Painting (Practical Art)
Biology	Processing Technologies (Food Technology at BMC)
Chemistry	Physical Education
*Classical Studies	Physics
Construction and Mechanical Technologies (Hard Material Technology at BMC)	Technology
Computing	*Te Reo Rangatira
Digital Technologies	*Plus, a range of second languages by correspondence including French, German and Japanese
Drama	Mathematics
Economics	Science
English	
Geography	
Graphics Design and Visual Communication	
History	

* = available only by distance learning at BMC

SPECIAL ADMISSION REQUIREMENTS FOR UNIVERSITY

Admission requirements to university courses are reviewed and updated annually. While University Entrance is a minimum requirement to apply for an undergraduate bachelor's degree, many courses have higher and specific entry requirements.

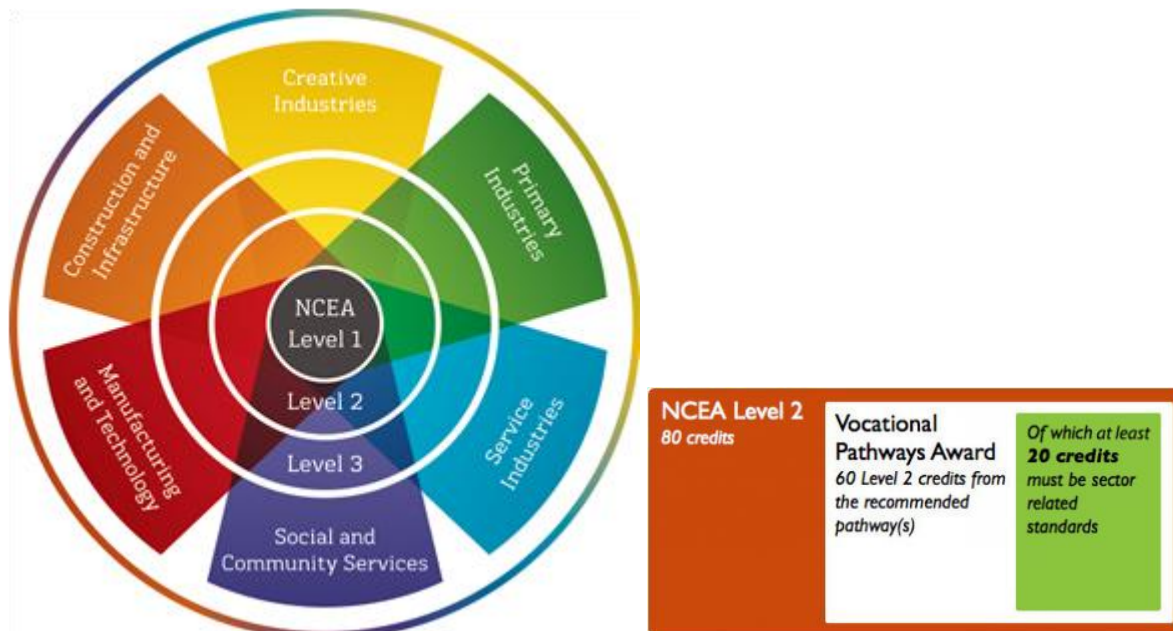
Universities publish Preferential/Guaranteed Entry Standards in their prospectuses. These are based on academic results; grade points are allocated to grades achieved, where an Achieved grade is worth two points, Merit is worth three grade points and Excellence is worth four grade points. Because of this, students seeking admission to limited entry courses should consider courses with more Achievement Standards than Unit Standards.

Most universities base their ranking on credits from subjects in the approved subjects list.

Students should research tertiary courses they are interested in well in advance, checking with each tertiary institution to see entry criteria to courses.

VOCATIONAL PATHWAYS AWARDS

The Vocational Pathways provide new ways to achieve NCEA Level 2. These pathways let you see how learning and achievement is valued in the workplace. They also suggest the types of study options and jobs opportunities available to learners.



The Vocational Pathways provide new ways to achieve NCEA Levels 1, 2 and 3 and develop pathways that progress to further study, training and employment. Achieving NCEA Level 2 is the foundation for success in further education and the world of work. Level 3 builds upon this through shared opportunities across school, tertiary, and industry training. The Vocational Pathways provide a framework for students to show how their learning and achievement is valued in the workplace by aligning learning to the skills needed for industry.

The six Vocational Pathways are:

- [Primary Industries](#)
- [Services Industries](#)
- [Social & Community Services](#)
- [Manufacturing & Technology](#)
- [Construction & Infrastructure](#)
- [Creative Industries](#)

At Level 2 a Vocational Pathways Award may be awarded if a student achieves 60 Level 2 credits from the recommended assessment standards for a Vocational Pathway sector, including at least 20 credits from the Sector-related standards for the same sector.

A learner can achieve more than one Vocational Pathways Award if they complete more than one Vocational Pathway. These will be awarded to students on their NZQA Record of Achievement.

Course Organisation at BMC

It must be noted that courses will only run if there are sufficient numbers to justify a class. If there are insufficient numbers to run a class on its own the school will look at a range of options to enable the student to take their chosen course. The options, in order of educational preference, are listed below:

- Course provided through face-to-face teaching but with a reduced number of contact hours each week. Students would be required to complete work set by the teacher in the remaining timetabled periods.
- Course provided through face-to-face teaching in a combined class.
- Course provided on-line using video conferencing technology and delivered by NetNZ.
- Course studied via correspondence.

More detail about these options follows.

Methods of Instruction

Subjects are delivered to students in three main ways.

1. **Face-to-face instruction.** This is the normal style of delivery with the student in a classroom environment along with other students and taught by a teacher in regular timetabled periods. While this will normally be a specific subject at a specific level it is sometimes necessary to combine small classes to make them viable or to allow us to staff them effectively. As an alternative to combined classes it may be preferable to limit the number of periods a week that the class is 'taught'. This would mean students would have up to two periods a week when they would work independently on work set by the teacher.
2. **Online instruction.** Blue Mountain College will again be a part of NetNZ in 2025. Some subjects at Years 11,12 and 13 will be delivered through video conferencing. Generally speaking, students will have one hour of on-line delivery each week, when a teacher from one of the NetNZ schools will deliver an interactive session to students from different NetNZ schools. Students will be provided with work for the rest of the week and ongoing communication takes place via a range of communications including email and other online processes. The range of subjects offered through NetNZ in 2025 is outlined on the next page.
3. **Correspondence.** Subjects that are unable to be offered by the school or through NetNZ may be able to be studied via correspondence. These courses may be offered by The Correspondence School or through STAR funded courses delivered by institutions such as The Open Polytechnic of New Zealand or Telford – Southern Institute of Technology. Students will work on these subjects in regular timetabled slots, some of which may not be supervised. In addition, these courses require the students to do considerable additional work at home in their own time if they are to succeed.

NB: Students taking courses through the on-line or correspondence options must have a high level of self-motivation and be highly organised. They must have a demonstrated track record of good independent work and study skills. The final decision about a student's suitability for this type of study will be made by the Principal on the advice of the Senior Dean.

COURSES DELIVERED BY NetNZ

NetNZ is a growing cluster of rural and urban New Zealand schools. Each school provides one or two subjects to students in the cluster. These are delivered via video-conference, web-based formats and email. They do need to be enrolled through BMC.

For the complete and up-to-date course list please go to their website www.netnz.org
If students are interested in taking a NetNZ course in 2025 they can see Ms N. Wright to discuss their options.

Alternative Courses for Senior Students

E.S.O.L.

PREREQUISITES

For International fee paying students, exchange students, permanent resident or migrant students.

COURSE OUTLINE:

This subject is taught at the required level for each student.
Basic, Elementary, Lower Intermediate, Higher Intermediate.

This is a focus on the English language skills and strategies which empower students so that they are able to communicate effectively in an English speaking environment. Components are chosen in accordance with the needs and wants of the students. Students need to extend all areas of their general English language ability. All four skills of speaking, listening, reading and writing are covered. Topics are determined by the needs and wants of the students.

Academic English

For students who desire to sit I.E.L.T.S. Cambridge or T.O.E.F.L. examinations (Universal English standard exams) lessons are provided to increase your level of achievement in these exams. Gain the language and techniques needed to perform successfully in the tertiary sector. Focus on all the four language skills of reading, writing, speaking and listening.

FOR FURTHER INFORMATION SEE:

Mrs A McHutchon
amchutchon@bmc.school.nz

Gateway

Gateway offers students an opportunity to experience workplaces first hand as well as take part in structured workplace learning. The learning is hands-on and practical and students pursue individual learning programmes which allow them to gain new skills and knowledge in a workplace in the local community.

Gateway is more than a work experience programme. It is aimed at students who have a clear career goal and are motivated to succeed. Gateway students will be placed in the industry they wish to pursue a career in. Industries may include hospitality, automotive, retail, tourism, engineering and building.

To be selected for the programme students will have to go through a rigorous process. Students will be timetabled for Gateway as part of the regular timetable but, for much of the year, will also spend one day a week in their workplace.

Qualifications to be gained: Students are assessed both in the classroom and in the workplace for unit standards which can contribute to NCEA as well as to industry specific qualifications.

FOR FURTHER INFORMATION SEE:

Mrs J. Venz

jvenz@bmc.school.nz

Southern Secondary Tertiary Pathways

This course is available to Year 12 and 13 students and is currently run alongside Gateway. Southern Secondary Tertiary Pathways run on Fridays and are designed to provide pathways in Primary Industries (Taratahi), Manufacturing and Technology (SIT), Construction and Infrastructure (SIT), Service Industries (SIT). The courses involve the students combining both practical and theory to complete Unit Standards to develop skills for employment in these industries.

FOR FURTHER INFORMATION SEE:

Mrs J. Venz

jvenz@bmc.school.nz

Year 11 Courses

At Year 11 most students study 6 subjects. Three of these are compulsory - English, Mathematics and Science which are all NCEA Level 1 subjects. The other three subjects are chosen from the list of optional subjects.

All Year 11 courses are based on schemes of work developed by each Department to meet the requirements of the appropriate National Curriculum Framework statement or document.

Assessment for Year 11 courses

All students in Year 11 will study courses that will be assessed against Achievement Standards and in some cases Unit Standards for the National Certificate in Educational Achievement (NCEA) Level 1. Details of the requirements for this qualification are found on page 3 of this booklet.

AGRICULTURE

QUALIFICATION & LEVEL: NCEA Level One



COURSE PREREQUISITES

- It would be helpful for students to have studied Agriculture at Year 10 as the skills and knowledge obtained at this level are extended and developed further at Years 11 & 12.
- Well-developed literacy skills are required to cope with the demands of the various achievement standards.
- An ability to manage time effectively and organise and prioritise is required as it is expected that students will need to complete some activities at home.

COURSE OUTLINE

This course is based mostly around Achievement Standards. Some unit standards will be incorporated if time allows. Coverage will depend on time constraints, student abilities and needs and therefore the content may vary from year to year.

Topics will be chosen from the following Achievement Standards

- Demonstrate understanding of a life process and how it is managed in a primary production system.
- Demonstrate understanding of factors that influence the purpose and location of primary production.
- Demonstrate understanding of how soil properties are managed in a primary production system. (External)
- Demonstrate understanding of sustainability considerations that influence primary production management practices.

A selection of Unit Standards may include

- Introductory Sheep Shearing Course
- Introductory Fencing Techniques Course

Through this course the students will develop skills in agricultural knowledge and practical skills associated with the farm. They will also be exposed to career options in agriculture /horticulture.

COURSE OUTCOMES

- Year 12 (NCEA Level 2) Agriculture
- Various Career Options in the Primary Industries

ASSESSMENT PROCEDURES

- Internal assessment – Achievement and unit standards.
- External Assessment – of exam topic covered- Soil properties

COURSE COSTS

- The course may include some farm trips and field days and students will be required to contribute towards the costs of these.

FOR FURTHER INFORMATION SEE:

Mrs L. Murray lmurray@bmc.school.nz

Art

QUALIFICATION & LEVEL: NCEA Level One

COURSE PREREQUISITES

Successful completion of Year 10 Art.

COURSE OUTLINE

This course is an Achievement Standards course with a range of internally marked work and a panel Mixed Media Art Board which is externally marked. This is achievable for most students of varying ability and not pure Painting. The class may be a multi-level (Yr 11-13) class.

COURSE OUTCOMES

It provides a knowledge of skills and techniques that can be used towards further study in Fine Arts or Design Communications at Polytechnic and Architecture at both Polytechnic and University.

COURSE COSTS

- \$ 50 to cover art board and supplies (a discounted brushes and paint kit will be provided for purchase in Term 1)

FOR FURTHER INFORMATION SEE:

Mrs M Hendriks
mhendriks@bmc.school.nz

COMMERCE

QUALIFICATION & LEVEL: NCEA Level One

PREREQUISITES: N/A.

This is a new NZQA subject this year which combines Business Studies, Accounting and Economics.

COURSE OUTLINE

- Demonstrate understanding of an organisation's financial decision making.
- Demonstrate understanding of price determination for an organisation.
- Demonstrate understanding of how interdependent financial relationships are affected by an event.
- Demonstrate understanding of how an organisation's financial viability is affected by an event.

COURSE OUTCOMES

Provides an ideal background for Year 12 Economics and/or Accounting

ASSESSMENT PROCEDURES

Assessment is via a mix of two internal and two external standards.

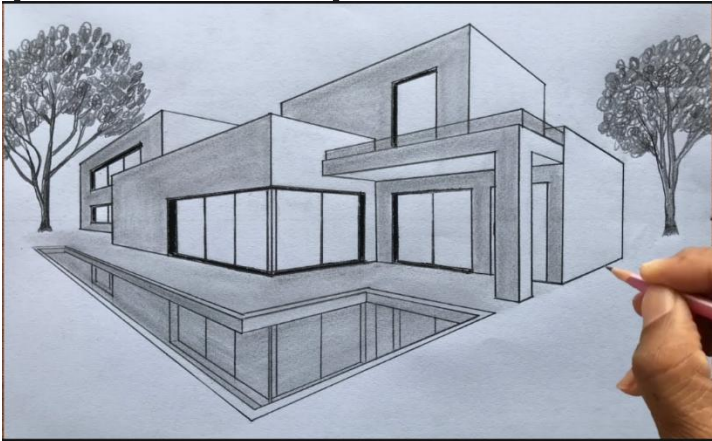
COURSE COSTS

\$30 Workbook Field trip approx. \$10

FOR FURTHER INFORMATION SEE:

Mr P.Davies pdavies@bmc.school.nz

DESIGN AND VISUAL COMMUNICATION (GRAPHICS)



QUALIFICATION & LEVEL: NCEA Level One_

PREREQUISITES: Students must enjoy drawing, sketching and Model making. An interest in design, building, construction techniques and problem solving is useful.

COURSE OUTLINE

In Y11 students will develop design ideas using visual communication techniques in response to a design brief while considering functional and aesthetic influences. These will include the consideration of people, regional styles, Te Ao Māori design influences and the forms of objects, spaces, or buildings.

A combination of some of the following will be developed through the course.

- bubble diagrams, floor plans for spatial design
- 2D and 3D sketches and drawings
- rendered presentation sketches (demonstrating tone, colour, materiality etc)
- section views, cross-sections and elevations
- orthographic drawing/projection
- paraline drawing (isometric, oblique, or planometric drawings)
- hand built models

The design brief approach will be applied throughout the course to ensure that students fully explore the design process, develop a broad range of graphic communication skills and an appreciation of good design.

COURSE OUTCOMES

- Strongly recommended as a prerequisite for Year 12 Design and Visual Communication (Graphics) and recommended for students taking Year 12 and 13 Hard Materials Technology.
- Students can go into further study at Polytechnic or University in drawing, design and media courses.

ASSESSMENT PROCEDURES

Assessment opportunities will include Achievement Standards using a combination of internal and external assessment. There are no exams as all external assessment is based on a portfolio of work due early Term 4.

COURSE COSTS

Students will be required to purchase a range of drawing instruments and materials as specified on the stationery list.

FOR FURTHER INFORMATION CONTACT

Mr M. Murrell or Mr L. Brensell.

mmurrell@bmc.school.nz lbrensell@bmc.school.nz

DIGITAL TECHNOLOGIES

QUALIFICATION & LEVEL: NCEA Level One



PREREQUISITES: Year 10 Digital Information is preferred but *not essential*. Please talk to me and see what is involved for next year so you can decide.

COURSE OUTLINE

This Digital Technologies course is largely a project-based course, with a design component and a computer science component.

Design Component:

- Learning either HTML and CSS to design and create a website, Fusion or Blender and the 3 D printer to design a 3D model, Godot for game creation. Other software is possible with discussion.
- Using iterative processes to create a digital outcome.
- Understanding their project in the wider digital world through addressing implications such as end-user requirements and legal/ethical issues.

Computer Science Component:

- Developing a computer programme or computer game – using Python and/or Godot
- Using iterative processes to create a digital outcome.
- Understanding their project in the wider digital world through addressing implications such as end-user requirements and legal/ethical issues.

External Component:

Designing a digital outcome (end of Term 3)

- Human Computer Interaction (end of year exam)

Students can make some choices about:

- *Software they will use.*
- *Topic choice for their project*

ASSESSMENT PROCEDURES

This Digital Technologies course is assessed against the four Digital Technology Achievement Standards.

This course prepares students for the workplace, for further education in most fields and for working in the community. Computer science and design are areas where there are vacancies in the current workforce.

COURSE OUTCOMES

This course prepares students for Level 2 Digital Technologies. Students who engage in learning an area of digital technology that suits their interests are well placed to take the subject at Level 3.

ASSESSMENT PROCEDURES

Assessment will consist of:

- Two Internal Achievement Standards
- Two External Achievement Standards

COURSE COSTS**FOR FURTHER INFORMATION SEE:**

Mrs P Challenger

pchallenger@bmc.school.nz



ENGLISH

QUALIFICATION & LEVEL: NCEA Level One

COURSE OUTLINE

The focus of this course is to expand your ability to both understand and communicate developed ideas in oral, written and visual language. A variety of contexts and formats will be used as part of this course, depending on student interest and abilities.

The NCEA Standards:

- Demonstrate understanding of how context shapes verbal language use.
- Demonstrate understanding of a studied text.
- Develop ideas in writing using stylistic and written conventions.
- Demonstrate understanding of significant aspects of unfamiliar texts.

COURSE OUTCOMES

This course leads to the study of Level Two English. Passing Level One Literacy in English via a combination of internal and external standards, with an average grade of Merit, is recommended for those wanting to undertake Level Two Academic English.

ASSESSMENT PROCEDURES

Level 1 NCEA English is assessed by a combination of externally and internally assessed standards.

FOR FURTHER INFORMATION SEE:

Miss Swanson or Miss J. Farrelly

lswanson@bmc.school.nz

jfarrelly@bmc.school.nz

FOOD & NUTRITION

QUALIFICATION & LEVEL: NCEA Level One

COURSE OUTLINE

This course provides students with an interest in food and provides the foundations not only for Level 2 and 3, but for potential careers in nutrition, food science, the hospitality industry and teaching.

Students will develop an understanding of current issues related to food and nutrition and learn how a range of factors influence well-being. A range of contexts are possible to explore from food safety and food marketing to societal food influences.

There is a regular practical component to the course where students can eat and/or take-home prepared dishes if they wish. Practical upskilling will also be integrated into course, with the potential scope for Unit standards.

COURSE OUTCOMES

This course prepares students for Level 2 Food & Nutrition with the foundation knowledge required. Students will be provided with many foods related life skills from labelling and packaging analyses through to practical skills, essential for industry work or further education.

ASSESSMENT PROCEDURES

The course will be assessed against NCEA Achievement standards. A combination of internal and external standards may be offered. The course may also include Unit standards which are internally assessed.

COURSE COSTS

Annual Fee \$70.00

FOR FURTHER INFORMATION SEE:

Mr S. Wright

swright@bmc.school.nz

HAG (HISTORY AND GEOGRAPHY)

This programme was developed in response to ongoing concerns that History and Geography often clash and therefore restrict the options available to students. It is based on a combination of Geography and History Achievement Standards. Students complete 15 Credits, roughly half from each subject but the course is organised to allow flexibility to meet individual needs/interests within the area. It is equally suited for students with a bent for either subject and will fully prepare them for the ongoing study of either or both subjects at higher levels.

QUALIFICATION & LEVEL: NCEA Level One

COURSE OUTLINE:

A. Geography Component:

- Geographic Skills
- Geographic decision making in Aotearoa/New Zealand



B. History Component chosen from:

- Historical Concepts: Perspectives, Primary/Secondary Evidence, Significance.
- Context: New Zealanders at War.

COURSE PATHWAY

At School – Year 12, Level 2 Historical and Geographical Studies (Geography, History), Year 13, Level 3 History and Geography (separate subjects). Various tertiary courses.

It relates to many areas of employment including but not limited to: advertising, broadcasting, journalism, library, any branch of local or central government activity, public relations, publishing, research, tourism, law and teaching.

Useful as preparation for university research and report writing.

ASSESSMENT PROCEDURES

A combination of internal and external Achievement Standards are chosen from the fields of History and Geography. For Excellence subject endorsement in HAG, 14 Excellence credits from History and/or Geography standards will gain students an Excellence subject endorsement. Similar for Merit.

COURSE COSTS

A small amount to cover transport for field trips (if undertaken).

FOR FURTHER INFORMATION SEE:

Ms N. Wright

nwright@bmc.school.nz



MATHEMATICS

QUALIFICATION & LEVEL: NCEA Level One

PREREQUISITES

Satisfactory completion of Year 10 Mathematics.

COURSE OUTLINE

General Objectives: Candidates will ~~learn~~be expected to:

- Demonstrate mathematical skills, concepts and understandings in the Mathematical Processes, Number, Measurement, Trigonometry, Geometry, Algebra and Statistics curriculum strands.
- Apply these skills, concepts and understandings to familiar and unfamiliar problems arising in real and simulated situations.
- Demonstrate the ability to select and use appropriate mathematical techniques in problem solving.
- Demonstrate the ability to reason logically and systematically.
- Demonstrate the ability to communicate mathematical ideas.

THE CONTENT:

Each of the following standards are worth 5 credits

Externally Assessed:

- 1.3- Interpret and apply mathematical and statistical information in context
- 1.4- Demonstrate mathematical reasoning

Internally Assessed:

- 1.1 Explore data using a statistical enquiry process
- 1.2 Use mathematical methods to explore problems that relate to life in Aotearoa New Zealand or the Pacific

COURSE OUTCOMES

Mathematics is a subject required or recommended for many career opportunities. Many tertiary providers and employers use mathematics as a means of sorting the best candidates. Good grades at Year 11 level lead to Year 12 and Year 13 Mathematics. To gain Level 1 NCEA, pupils must gain a minimum of 10 Numeracy Credits.

ASSESSMENT PROCEDURES

The course is assessed by a combination of internal and external Achievement Standards.

A range of relevant Unit Standards may also be assessed.

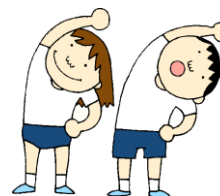
COURSE COSTS

Workbook (approximately \$40) and a graphics calculator (approximately \$100).
[Those undertaking Unit Standards will not need a graphics calculator. Please contact Mrs Voigt if you have any questions around this.](#)

FOR FURTHER INFORMATION SEE:

Mrs M. Voigt

Mvoigt@bmc.school.nz



PHYSICAL EDUCATION

QUALIFICATION & LEVEL: NCEA Level One

COURSE OUTLINE

The Year 11 Physical Education course is based around theoretical and practical units of work and within these units the students 3 Achievement Standards with the possibility of completing an extra

These units are

1 - **Move to improve:** Students will participate in a particular sport and demonstrate key movement strategies associated with that sport such as offensive and defensive strategies.

2: - **Team games:** The students will participate in a range of team activities and identify ways in which they can promote Kotahitanga

3: - **Physical Activity and me:** Students will participate in various forms of physical activity and discuss how that impacts their well-being in relation to Te Whare Tapa Whā

4 – **Sports and Exercise:** Students will focus of the biomechanical improvement of a chosen skill. This looks at how the body functions with exercise also.

COURSE OUTCOMES

This course leads to Year 12 (NCEA Level Two) Physical Education.

ASSESSMENT PROCEDURES

The assessments are based around 2 internally assessed standards and 2 external based achievement standards all worth 5 credits. Many of the units are based around a practical activity, but the assessment is primarily written or verbally assessed. Students need to have a good grasp of English to perform well in the course. Many of the Achievement Standards require students to perform specific physical skills. Time will be given for students to bring their skill base up to appropriate levels.

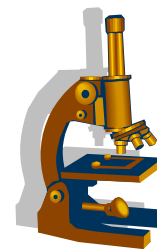
COURSE COSTS

There is the possibility that students will have 2 field trips. There will be a small cost associated with these to cover the activity and transport.

FOR FURTHER INFORMATION SEE:

Mrs A. Stiven astiven@bmc.school.nz

SCIENCE – 2 OPTIONS



QUALIFICATION & LEVEL: NCEA Level One

COURSE OUTLINE

Science is a way of investigating, understanding, and explaining our natural, physical world and the wider universe. It involves generating and testing ideas, gathering evidence, carrying out investigations and modelling, and communicating and debating with others to develop scientific knowledge, understanding and explanations.

Students will use scientific knowledge and understanding to describe and/or explain scientific phenomena in a variety of contexts and discuss the relationships in Science.

GENERAL SCIENCE:

The Content:

Externally Assessed:

- **Chemistry and Biology 1.3:** Demonstrate understanding of genetic variation in relation to an identified characteristic. (5 credits)
- **Physics, Earth, and Space Science 1.4:** Demonstrate understanding of energy in a physical system. (5 credits)

Internally Assessed:

- **Chemistry and Biology 1.2:** Demonstrate understanding of a chemical reaction in a specific context. (6 credits)

ASSESSMENT PROCEDURES

A combination of internal and external Achievement Standards will be used to assess this course.

COURSE OUTCOMES

Leads to Biology, Chemistry, or Physics at Year 12 (NCEA Level Two). Students intending to take any of the science subjects at Level 2 must do this science course at Level 1.

COURSE COSTS

Workbooks - approximate cost \$40

FOR FURTHER INFORMATION SEE:

Mrs S Burke

sburke@bmc.school.nz

AGRI-SCIENCE:

The Content:

Internally Assessed:

- **Chemistry and Biology 1.1:** Demonstrate understanding of the relationship between micro-organisms and the environment. (5 credits)
- **Chemistry and Biology 1.2:** Demonstrate understanding of a chemical

reaction is a specific context. (6 credits)

- **Physics, Earth and Space Science 1.1:** Demonstrate understanding of human-induced change within the Earth system. (5 Credits)

ASSESSMENT PROCEDURES

Only internal Achievement Standards will be used to assess this course.

COURSE OUTCOMES

Alongside Level 1 Agriculture, this course leads toward Level 2 Agriculture. This course is **NOT** designed for students intending to do Level 2 Biology, Chemistry or Physics.

COURSE COSTS

Workbooks - approximate cost \$40

FOR FURTHER INFORMATION SEE:

Mrs S Burke

sburke@bmc.school.nz

CONSTRUCTION AND MECHANICAL TECHNOLOGIES (WORKSHOP)



QUALIFICATION & LEVEL: NCEA Level One

COURSE OUTLINE

In Year 11 students will design and make two projects in the workshop, with specifications suited for a person, whānau, or the community. They will need to develop a fit-for-purpose outcome by combining different materials showing an understanding of materials, techniques and sustainable practices.

Practical components of the course are assessed using Building, Construction and Allied Trades Skills (BCATS) Unit Standards or Achievement Standards. The BCATS standards consist of practical furniture components which will be completed by students constructing small Teacher set projects. This will include a combination of internal and external assessment.

COURSE OUTCOMES

- Strongly recommended as preparation for Hard Materials Technology courses at Years 12 and 13.
- Further study at Polytechnic courses.
- Various related trades - BCATS Unit Standards may count towards various Industry Qualifications and may also advantage students wishing to gain apprenticeships and employment in this area.

ASSESSMENT PROCEDURES

Practical components of the course are assessed using Building, Construction and Allied Trades Skills (BCATS) Unit Standards and Achievement Standards. The BCATS standards consist of practical furniture components which will be completed by students constructing small teacher set projects. The Achievement standards will include a combination of internal and external assessment.

COURSE COSTS

To make and take home the NCEA projects there is a cost of \$120.00 to study this course. This will cover the cost for basic materials needed to manufacture two set projects. If pupils want to add on design features, they will need to provide these themselves. (Glass for cabinet doors and tables. Locks, handles, and catches.)

FOR FURTHER INFORMATION SEE:

Mr M. Murrell

mmurrell@bmc.school.nz

Year 12 Courses

All students in Year 12 study 6 subjects. The course must include English and Mathematics. The other 4 subjects are usually chosen from the Year 12 list but Year 12 Students may also choose to repeat or to do additional Year 11 NCEA Level 1 subjects.

STAR Open Polytechnic courses are normally designed for Year 13 students but Year 12 students may enter these in special circumstances, particularly where the course has particular career relevance.

Students may choose to do the Gateway programme. Entry to this programme requires students to go through a thorough selection process.

Assessment for Year 12 Courses

The content of each Year 12 course is specified by the relevant curriculum document with assessment occurring against Level 2 NCEA Achievement Standards. All students will be working to complete their Level 2 National Certificate of Educational Achievement (NCEA).

To gain a Level Two Certificate, students will need to achieve at least 80 credits with at least 60 of these being at Level Two or higher.

NZNet, Correspondence School and STAR courses all provide opportunities for Students to achieve credits from Achievement Standards or Unit Standards.

AGRIBUSINESS



QUALIFICATION & LEVEL: NCEA Level Two

COURSE PREREQUISITES

The course is designed to engage and expose tertiary capable students to the wide range of opportunities, skills required and career pathways available across the Agribusiness sector.

COURSE OUTLINE

The subject Agribusiness is a course of study that integrates primary industries and business beyond the farm gate, encompassed by a group of sectors (agriculture, aquaculture, dairy manufacturing, equine, forestry, horticulture, seafood and sports turf) that form the basis of modern food production.

Course material is based around newly created Agribusiness achievement standards developed under four strands, Science and technology, Innovation, Management and Finance and Marketing.

- Demonstrate understanding of the future proofing influences that affect business viability.
- Conduct an inquiry into the use of organisms to meet future needs.
- Demonstrate understanding of a primary industry business structure that best meets the strategic needs of a business.
- Demonstrate understanding of cash flow forecasting for a business.

COURSE OUTCOMES

- Leads into Year 13 Agribusiness.
- Various Career Options in the Primary Industries

ASSESSMENT PROCEDURES

- A combination of internal and external achievement standards will be used to assess this course. The selection of standards may vary from year to year depending on the nature of the class.

COURSE COSTS

- The course may include some farm trips and field days and students will be required to contribute towards the costs of these.

FOR FURTHER INFORMATION SEE:

Mrs L. Murray

lmurray@bmc.school.nz

AGRICULTURE



QUALIFICATION & LEVEL: NCEA Level Two

COURSE PREREQUISITES

- It would be helpful for students to have studied Agriculture at Year 11 as the skills and knowledge obtained at this level are extended and developed further at Years 12.
- Well-developed organisational and management skills to assist students meet the requirements for research-based learning.

COURSE OUTLINE

This course is based on Achievement Standards, but a selection of Unit Standards may be included depending on time constraints, student interests and abilities and therefore the content may vary from year to year.

NCEA Level Two

Topics will be chosen from the following Achievement Standards

- Management Practices that Influence Livestock Growth & Development (External)
- The Interactions between Livestock Behaviour and Farm Management Practices
- Reproductive Techniques
- Locally Produced Primary Product Impact on the Environment

A selection of Unit Standards may include

- Fencing

Through this course the students will develop skills in agricultural knowledge and management practices associated with the farm. They will also be exposed to career options in the Primary Industries.

COURSE OUTCOMES

- This course provides a useful theoretical background for those intending to work in the Primary Industries.
- It also leads to the Year 13 Agribusiness course.
- It also leads to other Agricultural Courses eg. at Telford, Lincoln University

ASSESSMENT PROCEDURES

- Internal Assessment of most Achievement and Unit Standards
- External assessment of exam topic.

COURSE COSTS

There will be some costs associated with field work and excursions to field days.

FOR FURTHER INFORMATION SEE:

Mrs L. Murray

lmurray@bmc.school.nz



Art

QUALIFICATION & LEVEL: NCEA Level Two

COURSE PREREQUISITES

Successful completion of Level One.

COURSE OUTLINE

This course is an Achievement Standards course with a range of internally marked work and a 2 panel Art Board which is externally marked. The class may be a multi-level (Yr 11-13) class.

COURSE OUTCOMES

It provides a knowledge of skills and techniques that can be used towards further study in Fine Arts or Design Communications at Polytechnic and Architecture at both Polytech and University.

COURSE COSTS

- \$ 50 to cover art board and supplies
(A discounted brushes and paint kit will be provided for purchase in Term 1)

FOR FURTHER INFORMATION SEE:

Mrs M Hendriks

mhendriks@bmc.school.nz

BIOLOGY

QUALIFICATION & LEVEL: NCEA Level Two



PREREQUISITES: Satisfactory completion of Level One Science Achievement Standards particularly Chem/Bio 1.3

COURSE OUTLINE

Through learning in Biology, students discover that life involves interactions at all levels of organisation: cells interact with their environment and with each other, so do organs, organisms and ecosystems. No living thing exists in isolation from its environment.

The Content: Four Achievement Standards will be chosen from the following:

- Biology AS 91153 Carry out a practical investigation in a biology context, with supervision. Internal 4 credits
- Biology AS 91154 Analyse the validity of biological information presented to the public. Internal 3 Credits
- Biology AS 91155 Demonstrate understanding of adaptation of plants or animals to their way of life. Internal 3 Credits.
- Biology AS 91156 Demonstrate understanding of life processes at the cellular level. External 4 Credits.
- Biology AS 91157 Demonstrate understanding of genetic variation and change. External 4 Credits.
- Biology AS 91159 Demonstrate understanding of gene expression. External 4 credits

ASSESSMENT PROCEDURES

A combination of internal and external Achievement Standards will be used to assess this course. The selection of standards may vary from year to year depending on the nature of the class.

COURSE OUTCOMES

As well as leading on to Year 13 and various tertiary courses beyond that, Year 12 Biology is a complete course.

COURSE COSTS

Year 12 Biology - Course Manual approximately \$30.00

FOR FURTHER INFORMATION SEE:

Mrs S Burke
sburke@bmc.school.nz



CHEMISTRY

QUALIFICATION & LEVEL: NCEA Level Two

PREREQUISITES: Satisfactory completion of Level One Science [standards](#) - (particularly Chem/Bio 1.2) **and** Maths Achievement Standards

COURSE OUTLINE

Chemistry is about understanding the properties of different substances and how these substances can change. Chemistry allows us to predict how substances may alter when the surrounding conditions change, or how they may react to form new substances, and to explain why this happens.

The Content: Four Achievement Standards will be chosen from the following;
Practical skills are internally assessed.

- Chemistry AS 91164 Demonstrate understanding of bonding, structure and energy changes. External 5 Credits
- Chemistry AS 91165 Demonstrate understanding of the properties of selected organic compounds. External 4 Credits
- Chemistry AS 91166 Demonstrate understanding of chemical reactivity External 4 Credits
- Chemistry AS 91167 Demonstrate understanding of oxidation-reduction Internal 3 Credits
- Chemistry AS 91910 Carry out a practical investigation into a substance present in a consumer product using quantitative analysis. Internal 4 Credits
- Chemistry AS 91911 Carry out an investigation into chemical species present in a sample using qualitative analysis. Internal 3 Credits

ASSESSMENT PROCEDURES

A combination of internal and external Achievement Standards will be used to assess this course. The selection of standards may vary from year to year depending on the nature of the class.

COURSE OUTCOMES

As well as leading on to Year 13 and various tertiary courses beyond that, Year 12 Chemistry is a complete course in itself.

COURSE COSTS:

Year 12 Chemistry - Course Manual approximately \$30.00

FOR FURTHER INFORMATION SEE:

Mrs S Burke

sburke@bmc.school.nz

DESIGN AND DESIGN AND VISUAL COMMUNICATION (GRAPHICS)

QUALIFICATION & LEVEL: NCEA Level Two



PREREQUISITES: Preferably completed a Year 11 course in DESIGN AND VISUAL COMMUNICATION (GRAPHICS) or any other Technology area but consideration will be given to highly motivated students. Students must enjoy drawing, sketching and model making. Pupils will be working on both products and architectural briefs.

COURSE OUTLINE

The Year 12 course is structured around four sections:

- Developing a product design by using graphics practice
- Developing a spatial design by using graphics practice
- The use of visual communication techniques to generate design ideas
- The use of visual communication techniques to present a final design

The design brief approach will be applied throughout the course to ensure that students fully explore the design process, developing skills in freehand and formal drawing techniques using a range of graphic media.

COURSE OUTCOMES

- Strongly recommended as a prerequisite for Year 13 DESIGN AND VISUAL COMMUNICATION (GRAPHICS) and further study at University or Polytechnic.
- Degree courses in Design, Architecture, Engineering and trades.

ASSESSMENT PROCEDURES

A combination of Achievement Standards covering:

- a. Visual Design
- b. Creative Thinking
- c. Instrumental Drawings
- d. Perspective Drawings

COURSE COSTS

Students will be required to purchase a range of drawing instruments and materials as specified on the stationery list.

Note: this class will need a minimum number of students and may be run in conjunction with another level.

FOR FURTHER INFORMATION SEE:

Mr M. Murrell

mmurrell@bmc.school.nz



DIGITAL TECHNOLOGIES

QUALIFICATION & LEVEL: NCEA Level Two

PREREQUISITES: A passion for learning, problem solving and curiosity.

Organisation of ideas is an important skill to develop.

COURSE OUTLINE

This Digital Technologies course is largely a project-based course. **You can choose** Design or Computer Science.

Design Pathway:

- Inquiry topic guiding the process of selecting a digital outcome to create.
- Using Digital Media software to design and create a digital outcome of own choice. HTML, CSS for websites or Adobe Photoshop, Illustrator and InDesign.
- Presenting a summary of what you have made during the year (external).

Computer Science Pathway:

- Developing an advanced computer program/game – Python or Godot
- Project management techniques and software
- Presenting a summary of what you have made during the year (external).

COURSE OUTCOMES

Project management skills, organisation and planning, breaking a project into pieces to develop through trialling and testing. How to learn new software. This course prepares students for Level Three Digital Technologies. Students are also well prepared for a wide range of future courses at Polytechnics and Universities, and for employment.

ASSESSMENT PROCEDURES

Assessment will consist of:

- Internal Achievement Standards
- External Achievement Standard (Common Assessment task over three hours).

COURSE COSTS

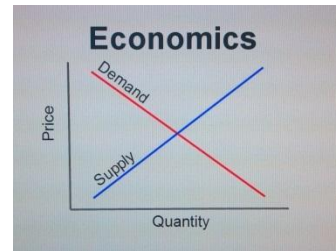
FOR FURTHER INFORMATION SEE:

Mrs P Challenger

pchallenger@bmc.school.nz

ECONOMICS

QUALIFICATION & LEVEL: NCEA Level Two



PREREQUISITES: Nil, although students who have achieved at least 3 Level 1 Economics Achievement Standards will be more at ease with the course.

COURSE OUTLINE

A study of the operation of the New Zealand economy as a whole, and the major economic issues arising from it. This is achieved by studies of the economic issues of:

- Trade
- Growth
- Inflation
- Employment
- Government policy and effects

COURSE OUTCOMES

This course provides vital background for Year 13 Economics and ultimately may lead to tertiary study in either University or Polytechnic leading towards qualifications in Commerce and Business Studies.

Year 12 Economics is also a relevant course for those contemplating an involvement in most areas of business.

ASSESSMENT PROCEDURES

A combination of internal and external Achievement Standards is used to assess student performance.

COURSE COSTS

Students are required to purchase a workbook at a cost of approx. \$~~3025~~

FOR FURTHER INFORMATION SEE:

Mr P Davies

pdavies@bmc.school.nz

ENGLISH



QUALIFICATION & LEVEL: NCEA Level Two

PREREQUISITES: Depending on numbers, and after looking at the end of year results, it is possible that two classes will operate in 2025. One class will be academic with a focus on gaining University Entrance Literacy. The prerequisite for this course is to gain Level One Literacy in a combination of English external and internal standards. An alternative course will offer fewer/different standards and/or some opportunities to reattempt some Level One Achievement Standards may also be offered.

NB: Students need to be mindful of their career aspirations and check what the University, Polytechnic or higher education provider requires, so they know which course to take at the beginning of the year. English is an arts subject and skills are cumulative, i.e., 90% of the standards cannot be picked up later in the year due to extensive preparation. Many of the standards are integrated into the programme

COURSE OUTLINE

The focus of this course is to develop your analytical skills as well as your ability to express yourself with sustained ideas in written, visual and oral language.

Possible NCEA Standards:

No.	I/E	Credits	University Entrance Credits	Title
2.1	E	4	Reading & Writing	Analyse specified aspect(s) of studied written text(s), supported by evidence
2.2	E	4	Writing	Analyse specified aspect(s) of studied visual or oral text(s), supported by evidence
2.3	E	4	Reading & Writing	Analyse significant aspects of unfamiliar written text(s) through close reading, supported by evidence
2.4	I	6	Writing	Produce a selection of crafted and controlled writing
2.6*	I	3		Create a crafted and controlled visual and verbal text
2.8*	I	4	Reading	Use information literacy skills to form developed conclusion(s)
2.10*	I	3		Analyse aspects of visual and/or oral text(s) through close viewing and/or listening, supported by evidence

*An alternative course

COURSE OUTCOMES

The course leads to the study of English at Year 13 (Level Three).

ASSESSMENT PROCEDURES

A combination of Internal and External Achievement Standards, as well as some Core Skills unit standards, are used to assess student performance.

FOR FURTHER INFORMATION SEE:

Miss Swanson or Miss J. Farrelly

lswanson@bmc.school.nz

jfarrelly@bmc.school.nz

FOOD, NUTRITION & HOSPITALITY

QUALIFICATION & LEVEL: NCEA Level Two

PREREQUISITES: Satisfactory completion of Level One Food & Nutrition standards,

COURSE OUTLINE

This course provides students with an interest in food, nutrition, and technology a foundation not only for Level 3, but for potential careers in nutrition, food science/technology, hospitality industry and teaching.

Students will undertake a variety of Introductory Hospitality standards providing essential skills for life and the hospitality industry. There is a regular practical component to the course where students can take home all prepared dishes if they wish.

COURSE OUTCOMES

This course prepares students for Level 3 Food & Nutrition with the foundation knowledge required. Students will be provided with many foods related life skills from developing and trialling new products through to planning nutritious meals for specific individuals, essential for industry work or further education. Food handling certificate 167 is an entry level qualification for working in a commercial kitchen and is required by most establishments.

ASSESSMENT PROCEDURES

The course will be assessed against Unit Standards. The course may also include Achievement Standards which are either internally or externally assessed.

COURSE COSTS

Annual Fee \$70.00

FOR FURTHER INFORMATION SEE:

Mr S Wright

swright@bmc.school.nz



HAG (History and Geography)

QUALIFICATION & LEVEL: NCEA Level Two

PREREQUISITES: Nil – but completion of Year 11 would be an advantage.

An advantage of taking HAG at Year 11 is that UE literacy Reading and Writing credits are available.

COURSE OUTLINE:

A. Geography Component:

- External:
 1. Apply Concepts and Geographic Skills
- Internal:
 1. Contemporary Geographical Issue in Aotearoa/New Zealand – Freedom Camping

B. History Component chosen from:

A study on an aspect of modern 20th Century World History. Topic choice could be from the following or another aspect depending on students' interests and class make-up.

- Vietnam and the conflict in Indochina, 1945-1975 (external and internal)
- Another topic in consultation with students.
- Research Assignments (internal)

COURSE OUTCOMES

Pathway to Level Three Geography and History.

Various tertiary courses

It relates to many areas of employment including but not limited to: Advertising, Broadcasting, Journalism, Library, Any Branch of Local or Central Government Activity, Public Relations, Publishing, Research, Tourism, Law and Teaching.

Useful as preparation for university research and report writing.

ASSESSMENT PROCEDURES

A combination of internal and external Achievement Standards are chosen from the Fields of History and Geography. For Excellence subject endorsement in HAG, 14 Excellence credits from History and/or Geography standards will gain students an Excellence subject endorsement. Similar for Merit.

COURSE COSTS

A small amount to cover transport for field trips (if undertaken)

FOR FURTHER INFORMATION SEE:

Ms N. Wright

nwright@bmc.school.nz

MATHEMATICS

QUALIFICATION & LEVEL: NCEA Level Two



PREREQUISITES:

Applied Mathematics- Success in four Level 1 Achievement Standards, particularly the Algebra MCAT.

General Mathematics- no prerequisites

Applied Mathematics

COURSE OUTLINE

This course has the general aims of developing a level of mathematical understanding and knowledge appropriate for students intending to proceed to tertiary level study in science, commerce and social sciences.

As well as these general aims the course has the following more specific goals:

- To consolidate and extend the work of Year 11 Mathematics, especially the use of coordinate methods and algebra and to provide a first introduction to calculus.
- To provide opportunities for students to gain further experience in the use of graphical and computational techniques, including the use of calculators. BYOD is encouraged.
- To strengthen students' ability to manipulate algebraic expressions, to set out arguments in logical form and to formulate problems in mathematical terms.

In teaching the course, emphasis will be given to establishing a firm understanding of concepts and mastery of basic techniques. Opportunities will be sought to foster students' awareness of the wide range of applications of mathematics as well as its intrinsic qualities and characteristics.

CONTENT

Algebra, Coordinate Geometry, Calculus, Sequences and Series, Statistics, Trigonometry and Probability.

COURSE OUTCOMES

Year 12 Mathematics is recommended for a wide range of careers including commerce, science and social sciences. The course also leads to both the Calculus and Statistics options of Year 13 Mathematics.

ASSESSMENT PROCEDURES

The course is assessed by a combination of internal and external Achievement Standards.

COURSE COSTS

A graphics calculator is required at a cost of approximately \$100. Workbook at the end of the year for revision (approximately \$40)

GENERAL MATHEMATICS

COURSE CONTENT

This course will cover some of the Financial Capability Unit Standards. Themes include Managing money, setting goals, Credit and Debit, Saving and investing, Insurance and Risk.

ASSESSMENT PROCEDURES

This course will be assessed by Internal Unit Standards.

COURSE COSTS

A calculator (does not need to be graphical)

FOR FURTHER INFORMATION SEE:

Mrs M.Voigt

Mvoigt@bmc.school.nz



PHYSICAL EDUCATION

QUALIFICATION & LEVEL: NCEA Level Two

PREREQUISITES: Satisfactory completion of NCEA Level One Physical Education would be preferable but not essential.

COURSE OUTLINE

This is an NCEA Level 2 Course. The course is based around four to five units which incorporate five to six Achievement Standards offering between 19 and 22 Credits.

These units are

Train to gain

Physical Education 2.3: Demonstrate understanding of the application of biophysical principles to training for physical activity (4 credits)

Social Responsibility

Physical Education 2.8: Consistently demonstrate social responsibility through applying a social responsibility model in physical activity (3 credits)

Outdoor Education

Physical Education 2.4: Perform a physical activity in an applied setting (4 credits)

Physical Education 2.7: Analyse the application of risk management strategies to a challenging outdoor activity (3 credits)

Biomechanics

Physical Education: 2.2: Demonstrate understanding of how and why biophysical principles relate to the learning of physical skills (5 Credits)

If there is time at the end of the year students will participate in an extra Achievement Standard. This will be **Physical Education 2.9:** Examine the implementation and outcome(s) of a physical activity event or opportunity (3 credits)

COURSE OUTCOMES

This course is a valuable asset for future community involvement in sport. It also provides a sound basis for students interested in a career in the fitness industry. Its emphasis on developing leadership skills has useful career spin-offs.

ASSESSMENT PROCEDURES

All Achievement Standards are internally assessed, mostly in class time.

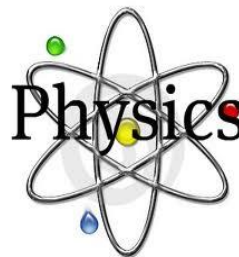
COURSE COSTS

An outdoor education camp will be held during Term 3. The final cost of this can vary depending on the activity chosen. If it is Snowboarding then the camp can cost approximately \$490 but it can be reduced by fundraising should the students choose to do so. Depending on cost and snow if this doesn't take place then there will be another camp related to an outdoor activity like rock climbing or something similar. Numbers can also affect the final cost.

FOR FURTHER INFORMATION SEE:

Mrs A. Stiven

astiven@bmc.school.nz



PHYSICS

QUALIFICATION & LEVEL: NCEA Level Two

PREREQUISITES: Satisfactory completion of Level One Science ([particularly Science AS 90940](#)) and Maths Achievement Standards.

COURSE OUTLINE

Physics seeks to understand nature at its most fundamental level. Physicists – and students studying physics – attempt to discover and apply the general laws that govern force and motion, matter and energy, and space and time.

The Content- four standards will be selected from the following:

- Physics AS (2.1) Carry out a practical physics investigation that leads to a non-linear mathematical relationship. Internal 4 Credits.
- Physics AS (2.2) Demonstrate understanding of physics in a selected context
- Physics AS (2.3) Demonstrate understanding of waves. External 4 Credits.
- Physics AS (2.4) Demonstrate understanding of mechanics. External 6 Credits.
- Physics AS (2.5) Demonstrate understanding of atomic and nuclear physics. Internal 3 Credits.
- Physics AS (2.6) Demonstrate understanding of electricity and electromagnetism. External 6 Credits.

ASSESSMENT PROCEDURES

A combination of internal and external Achievement Standards will be used to assess this course. The selection of Standards may vary from year to year depending on the nature of the class.

COURSE OUTCOMES

As well as leading on to Year 13 and various tertiary courses beyond that, Year 12 Physics is a complete course in itself.

COURSE COSTS

Course Manual - Approximately \$30.00

FOR FURTHER INFORMATION SEE:

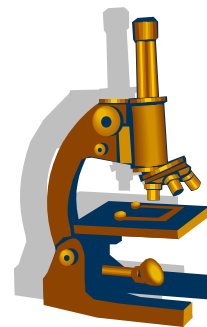
Mrs S Burke

sburke@bmc.school.nz

LEVEL 2 SCIENCE

QUALIFICATIONS & LEVEL: NCEA Level Two

PREREQUISITES: Satisfactory completion of Level One Science Achievement Standards.



COURSE OUTLINE

This course will be of interest to students who want to continue to take Science at Level Two but are not looking to go on to tertiary level Science courses. It contains internal Achievement Standards from the three main Science strands: Material World, Living World and Physical World. This course will not lead on to any standards at Level Three.

The Content:

- Biology AS (2.1) Carry out a practical investigation in a biology context, with supervision. Internal 4 Credits.
- Biology AS (2.8) Investigate biological material at the microscopic level. Internal 3 Credits.
 - Chemistry AS (2.2) Carry out an investigation into chemical species present in a sample using qualitative analysis. Internal 3 Credits
- Chemistry AS (2.7) Demonstrate understanding of oxidation-reduction. Internal 3 Credits
- Physics AS (2.5) Demonstrate understanding of atomic and nuclear physics. Internal 3 Credits.

ASSESSMENT PROCEDURES

Internal Achievement Standards will be used to assess this course.

COURSE OUTCOMES

This course **does not** lead on to the Level 3 Biology, Chemistry or Physics courses. Depending on numbers there may be a Level 3 Science course offered.

COURSE COSTS

Course Manual - approximate cost \$25.

FOR FURTHER INFORMATION SEE:

Mrs S Burke
sburke@bmc.school.nz

CONSTRUCTION AND MECHANICAL TECHNOLOGIES (WORKSHOP)

QUALIFICATION & LEVEL: NCEA Level Two



PREREQUISITES: This course follows, and builds upon, the skills learned in the Year 11 Hard Materials Technology course. It is strongly recommended that students have completed any Year 11 Technology **and** DESIGN AND VISUAL COMMUNICATION (GRAPHICS) courses.

COURSE OUTLINE

The course is made up of two strands:

1. NCEA Achievement Standards
2. Building, Construction and Allied Trades Skills (BCATS) Unit Standards. These are mainly practically based and are internally assessed during the year.

The teacher will decide which strand they complete with consultation with the student.

COURSE OUTCOMES

- Further study at University or Polytechnic in Design related courses.
- Various trades and apprenticeships.

ASSESSMENT PROCEDURES

Pupils will be required to make two set projects.

NCEA Internal Achievements Standards are assessed throughout the year and portfolios sent for External Marking at the end of the year.

Unit Standards are assessed on an ongoing basis throughout the year and are externally moderated at the end of the year.

COURSE COSTS

To make and take home the NCEA projects there is a cost of \$120.00 to study this course. This will cover the cost for basic materials needed to manufacture two set projects. If pupils want to add on design features they will need to provide these themselves. (Glass for cabinet doors and tables. Locks, handles and catches.

FOR FURTHER INFORMATION SEE:

Mr M. Murrell

mmurrell@bmc.school.nz

All Year 13 students study 5 subjects. While most choose subjects from the Year 13 list it is not unusual for some Year 13 students to be doing some Year 12 or even Year 11 courses. In fact, given the need to achieve the best possible formal qualifications, this multi-leveilling may be the best option for some students.

Year 13 Students may also choose STAR Open Polytechnic courses, NetNZ courses and Correspondence School subjects. Students may also choose to do the Gateway programme. Entry to this programme requires students to go through a thorough selection process.

Assessment for Year 13 Courses

The content of each Year 13 course is specified by the relevant curriculum document with assessment occurring against Level 3 NCEA Achievement Standards and in some cases Unit standards. All students will be working towards completing their Level 2 and/or Level 3 NCEA.

For a student to be awarded NCEA Level 3 they must achieve 80 Credits of which at least 60 must be at Level 3 or higher. The other 20 may be at a lower level.

Agribusiness

QUALIFICATIONS & LEVEL: NCEA Level Three



PREREQUISITES

Satisfactory completion of one Science and/or Economics course at Level 2.

COURSE OUTLINE

The Year 13 Agribusiness course is designed to provide students with a broad Agribusiness experience. It covers innovation, science, management, finance and marketing concepts that provide students with the opportunity of pursuing a career in Agribusiness

The Content:

No.	I/E	Level	Credits	Title
3.1	I	3	4	Demonstrate understanding of solutions and strategies for future proofing businesses.
3.2	I	3	4	Demonstrate understanding of the impacts of strategic capital expenditure decisions in a business.
3.3	I	3	4	Demonstrate understanding of the importance of businesses growing the value of their products.
91530	E	3	5	Demonstrate understanding of how market forces affect supply of and demand for New Zealand primary products.

The 5th achievement standard will be selected as course progresses.

ASSESSMENT PROCEDURES

A combination of internal and external Achievement Standards will be used to assess this course. The selection of standards may vary from year to year depending on the nature of the class.

COURSE OUTCOMES**Aims of the course:**

- To prepare students for career pathways and opportunities within the Agribusiness sector.
- To develop a knowledge of basic facts, principles and theories in Agribusiness.
- To help students improve their knowledge and understanding of Agribusiness concepts.
- To provide students with opportunities to develop scientific skills and attitudes.
- To develop an appreciation of the impact science and technology has on our everyday lives.
- To develop a continuing interest in Agribusiness.
- To develop students reading, numeracy and comprehension skills.

COURSE COSTS

Field Trip approximately \$50

FOR FURTHER INFORMATION SEE:

Mrs L. Murray

lmurray@bmc.school.nz

Art

QUALIFICATION & LEVEL: NCEA Level Three



COURSE PREREQUISITES

Successful completion of Level Two.

COURSE OUTLINE

This course is an Achievement Standards course with a range of internally marked work and a three panel Art Board which is externally marked. The class may be a multi-level (Yr 11-13) class.

COURSE OUTCOMES

It provides a knowledge of skills and techniques that can be used towards further study in Fine Arts or Design Communications at Polytechnic and Architecture at both Polytech and University.

COURSE COSTS

- \$ 50 to cover artboard and supplies (a discounted brushes and paint kit will be provided for purchase in Term 1)

FOR FURTHER INFORMATION SEE:

Mrs M Hendriks

mhendriks@bmc.school.nz

BIOLOGY

QUALIFICATION & LEVEL: NCEA Level Three



COURSE OUTLINE

Life is incredibly varied yet based on common processes. Biologists – and students studying biology – seek to understand where and how life is evolving, how evolution links life processes and ecology, and the impact that humans have on all forms of life.

The Content: Four Achievement Standards will be chosen from the following:

- Biology AS 91602 Integrate biological knowledge to develop an informed response to a socio-scientific issue. Internal 3 Credits
- Biology AS 91603 Demonstrate understanding of the responses of plants and animals to their external environment. External 5 Credits
- Biology AS 91604 Demonstrate understanding of how animals maintain a stable environment. Internal 3 credits
- Biology AS 91605 Demonstrate understanding of evolutionary processes leading to speciation. External 4 credits
- Biology AS 91607 Demonstrate understanding of human manipulation of genetic transfer. Internal 3 credits

ASSESSMENT PROCEDURES

A combination of internal and external Achievement Standards will be used to assess this course. The selection of Standards may vary from year to year depending on the nature of the class.

COURSE OUTCOMES

As well as leading on to various tertiary courses, Year 13 Biology is a complete course in itself. Students looking to go on to study Health Sciences or Physical Education should take Level Three Biology.

COURSE COSTS

Year 13 Biology - Course Manual – approximately \$30.00

FOR FURTHER INFORMATION SEE:

Mrs S Burke

sburke@bmc.school.nz



CHEMISTRY

QUALIFICATION & LEVEL: NCEA Level Three

PREREQUISITES: Students need to have achieved well in Level Two Chemistry and Mathematics.

COURSE OUTLINE

This course is a continuation of the Year 12 Chemistry, and it extends each topic leading to the Level Three NCEA Achievement Standards.

The course aims to foster thinking skills and to investigate the Chemical World in some detail.

The Content: Four Achievement Standards will be chosen from the following:

- Chemistry AS 91387 Carry out an investigation in chemistry involving quantitative analysis. Internal 4 Credits
- Chemistry AS 91388 Demonstrate understanding of spectroscopic data in chemistry. Internal 3 Credits
- Chemistry AS 91389 Demonstrate understanding of chemical processes in the world around us. Internal 3 Credits
- Chemistry AS 91390 Demonstrate understanding of thermochemical principles and the properties of particles and substances. External 5 Credits
- Chemistry AS 91392 Demonstrate understanding of equilibrium principles in aqueous systems. External 5 Credits
- Chemistry AS 91393 Demonstrate understanding of oxidation-reduction processes. Internal 3 Credits

ASSESSMENT PROCEDURES

A combination of internal and external Achievement standards will be used to assess this course. The selection of Standards may vary from year to year depending on the nature of the class.

COURSE OUTCOMES

The course may be used as preparation for University and Polytechnic based courses for a wide variety of careers in industry, research, government departments, medicine and health, teaching, management and administration.

COURSE COSTS

Lab Manual – approximately \$35.00

FOR FURTHER INFORMATION SEE

Mrs S Burke

sburke@bmc.school.nz

DESIGN AND VISUAL COMMUNICATION (GRAPHICS)



QUALIFICATION & LEVEL: NCEA Level Three

PREREQUISITES: Preferably a Year 11 or Year 12 course in Design and Visual Communication (Graphics) or any other Technology area and or Art at Level 2 will have been completed but consideration will be given to highly motivated students. Students must enjoy drawing and sketching. Pupils will be working on both products and architectural briefs.

COURSE OUTLINE

The Year 13 course is structured around four sections:

- Creating design ideas by exploring alternatives
- Resolving spatial designs by using graphics practice
- Resolving product designs by using graphics practice
- Developing a visual presentation that shows design outcomes to an audience.

The design brief approach will be applied throughout the course to ensure that students fully explore the design process, develop a broad range of graphic communication skills and an appreciation of good design. Skills in freehand and formal drawing techniques using a range of graphic media will be included.

COURSE OUTCOMES

- Further study at University or Polytechnic.
- Degree courses in Design, Architecture, Engineering and trades.
- When assessed by Achievement Standards, this course is an approved course for University Entrance. (Students need 14 credits in 3 approved courses as part of the University Entrance Requirements.)

ASSESSMENT PROCEDURES

A combination of Achievement Standards covering:

- a. Visual Literacy
- b. Creative thinking
- c. Visual communication techniques

COURSE COSTS

Students will be required to purchase a range of drawing instruments and materials as specified on the stationery list.

Note: this class will need a minimum number of students and may be run in conjunction with another level.

FOR FURTHER INFORMATION SEE:

Mr M. Murrell

mmurrell@bmc.school.nz



DIGITAL TECHNOLOGIES

QUALIFICATION & LEVEL: NCEA Level Three

PREREQUISITES: A background in other Technology subjects or success at Year 11 Digital Technologies. Year 12 Digital Technologies is a preferred entry qualification.

COURSE OUTLINE

This Digital Technologies course is largely a project-based course, and **you choose one of two different pathways to do for the year** (Design or Computer Science).

Design Pathway:

- Using Digital Media software to design and create using software such as Adobe Photoshop, Illustrator and inDesign.
- Critical inquiry topic guiding the process of developing your digital outcome.
- Using industry processes (Waterfall Methodology) to guide the creation of a digital outcome.
- Presenting a reflective analysis of what you have made during the year (external).

Computer Science Pathway:

- Developing a complex computer program – using C#, Unity or Java.
- Using industry processes (Agile Methodology) to create your computer program.
- Presenting a reflective analysis of what you have made during the year (external).

Design thinking, Problem Solving through breaking projects into smaller pieces and learning to learn new software techniques.

This is an approved subject for University Entrance. (Students can gain Entrance using 14 Credits from Digital Technologies)

COURSE OUTCOMES

Project management is a focus of Level 3 courses in Technology. Students taking Digital Technologies are well prepared for a wide range of future courses at Polytechnics and Universities including more specialist courses in Programming and Design. Students will also have skills that could be used in roles in the workforce. Skills and knowledge developed in this course are part of a skill set that is currently in demand in throughout the world.

ASSESSMENT PROCEDURES

The course will be assessed against Achievement Standards (both Internal and External).

COURSE COSTS

FOR FURTHER INFORMATION SEE:

Mrs P Challenger

pchallenger@bmc.school.nz

ECONOMICS

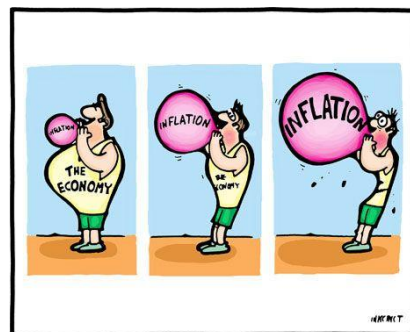
QUALIFICATION & LEVEL: NCEA Level Three

PREREQUISITES: Year 11 and/or Year 12
Economics studied and completed successfully.

COURSE OUTLINE

This is a one year course which covers the following:

- Resource allocation through the market system
- Efficiency of different market structures.
- Aggregate economic activity and policy.
- Micro-economic concepts



COURSE OUTCOMES

Leads to tertiary study in Economics at both University and Polytechnic levels.
It provides an ideal background for those who wish to pursue Commerce Degrees or Business Studies' diplomas or certificates.

ASSESSMENT PROCEDURES

A combination of internal and external Achievement Standards will be used to assess this course.

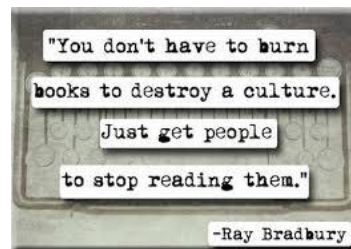
Course Costs

Economics Workbook approximately \$30.00

FOR FURTHER INFORMATION SEE:

Mr P. Davies

pdavies@bmc.school.nz



ENGLISH

QUALIFICATION & LEVEL: NCEA Level Three

PREREQUISITES: This course is for students who passed Level Two Literacy in a combination of English external and internal standards in Level 2 English. If there are sufficient students, and depending on results from 2019, an alternative course offering fewer standards and/or some opportunities to reattempt some Level 2 Standards may also be offered.

NB: Students need to be mindful of their career aspirations to check the University, Polytechnic or higher education provider requires, so they know which course to take at the beginning of the year. English is an arts subject, and skills are cumulative, i.e., 95% of the standards cannot be picked up later in the year due to extensive preparation. Many of the standards are integrated into the programme.

COURSE OUTLINE

The focus of this course is to develop your ability to critically respond to written and visual texts as well as to develop fluent and perceptive oral, written and visual literacy. A high level of fluidity, in terms of writing, and a love of reading are required.

Possible NCEA Standards:

No.	I/E	Level	Credits	Title
3.1	E	3	4	Respond critically to specified aspect(s) of studied written text(s), supported by evidence
3.2*	E	3	4	Respond critically to specified aspect(s) of studied visual or oral text(s), supported by evidence
3.3	E	3	4	Respond critically to significant aspects of unfamiliar written texts through close reading, supported by evidence
3.4	I	3	5	Produce a selection of fluent and coherent writing which develops, sustains, and structures ideas
3.8	I	3	4	Develop an informed understanding of literature and/or language using critical texts
3.9*	I	3	3	Respond critically to significant aspects of visual and/or oral text(s) through close reading, supported by evidence

*An alternative course

COURSE OUTCOMES

- The study of English at a high tertiary level

ASSESSMENT PROCEDURES

A combination of internal and external Achievement Standards will be used to assess this course.

COURSE COSTS Nil

FOR FURTHER INFORMATION SEE:

Miss Swanson or Miss J. Farrelly

lswanson@bmc.school.nz

jfarrelly@bmc.school.nz



FOOD & NUTRITION

QUALIFICATION & LEVEL: NCEA Level Three

PREREQUISITES: It is strongly recommended that you have completed Levels One and Two Food & Nutrition to ensure you have foundational knowledge and skills required for Level Three.

COURSE OUTLINE

This course provides students with an interest in food, nutrition, and technology and for potential careers in nutrition, food science/technology, hospitality industry and teaching. Over the course of the year, we take an in-depth investigation into ethical issues such as marketing and advertising of food, how the overconsumption of ultra-processed foods is affecting society, the influence multinational companies have on food choice and more importantly, becoming an agent of change through implementing action plans to solve a nutritional issue. Ultra-processed food consumption is the focus of the year.

There is a regular practical component to the course where students can take home all prepared dishes if they wish. Practical upskilling will also be integrated into course, with the potential for unit standards to also be incorporated.

COURSE OUTCOMES

Students will be provided with many food related life skills from critically analysing food marketing strategies, to implementing strategies to enhance health for all members of society. A thorough understanding and appreciation of societal and global influences on the eating patterns of New Zealand's will be gained. This course provides all students with a critical foundation to become food literate and critical consumers in the ever-evolving food industry and 21st century New Zealand.

ASSESSMENT PROCEDURES

The course will be assessed against NCEA Achievement standards. A combination of internal and external standards will be offered.

Course endorsement is also now available **and** this subject is a University entrance subject.

COURSE COSTS

Annual Fee \$70.00

FOR FURTHER INFORMATION SEE:

Mr S Wright

swright@bmc.school.nz

GEOGRAPHY

QUALIFICATION & LEVEL: NCEA Level Three

PREREQUISITES: Nil

COURSE OUTLINE

- A New Zealand Geographic Environment – The Southern Coast: Beaches (External/Internal - Fieldwork)
- Geographic Skills (External)
- Geographic Research (Internal)

COURSE OUTCOMES

Level Three Geography leads to University and/or Polytechnic courses in this area. Career opportunities exist in Tourism/Conservation/Resource Management/Planning.

ASSESSMENT PROCEDURES

The work done during the year will be assessed in two ways;

1. Internal assessment - formal internal Achievement Standard activity carried out during the year.
2. External assessment - Formal NCEA Achievement Standard exams at the end of the year.

COURSE COSTS Karitane Coast (Day Trip only) (petrol/lunch \$30)

FOR FURTHER INFORMATION SEE:

Mr P. Davies

pdavies@bmc.school.nz



HISTORY

QUALIFICATION & LEVEL: NCEA Level Three

PREREQUISITES: Nil – but Year 11 and/or 12 History or HAG an advantage.



COURSE OUTLINE

This course has 2 major components:

The first are whole class topics (for the Externals) which do change depending on the interests of the students. Generally, this means looking at least two case studies within the larger theme of Political Power and its uses. It could be:

- I. 'Discovery and colonisation of Aotearoa/New Zealand'

This component is externally and internally assessed.

The second requirement (Internal Assessment) is a two-part research assignment which is internally assessed and worth 10 credits overall. This aspect of the course examines major issues and people in a period of modern history – topic to be determined after discussion with individual students.

COURSE OUTCOMES

Tertiary study at both University and Polytechnic level. It relates to many areas of employment including: Advertising, Broadcasting, Journalism, Library, Any Branch of Local or Central Government Activity, Public Relations, Publishing, Research, Law and Teaching.

Useful as preparation for university research and report writing.

ASSESSMENT PROCEDURES

This course is assessed by a combination of internal (15 possible credits) and external (10 possible credits) Achievement Standards. Individual students will be able to choose which of these standards to complete as best suits their interests and abilities. With the aim of gaining at least the 14 required for University Entrance. *Students gain UE before the Externals if they successfully complete all three Internal standards.*

Course Costs

Field Trip costs dependent on availability of exhibitions etc – maximum cost \$25.

FOR FURTHER INFORMATION SEE:

Ms N. Wright

nwright@bmc.school.nz

COURSE OUTLINE

Time Series
Probability (two external papers)
Experimental Design
Linear Programming and Modelling
Probability Distributions
Simultaneous Equations
Formal Inference

COURSE OUTCOMES

The course leads to the:

- Biological Sciences
- Social Sciences
- Education
- Humanities
- Health Sciences

Both Statistics and Calculus are preferred for:

- Business Studies
- Agricultural Economics
- Agricultural Science
- Horticultural Science
- Technology

ASSESSMENT PROCEDURES

The course is assessed by a combination of internal and external Achievement Standards.

COURSE COSTS

The cost of workbooks (\$40) and a graphics calculator (approximately \$120).

FOR FURTHER INFORMATION SEE:

Mrs M.Voigt
mvoigt@bmc.school.nz

PHYSICAL EDUCATION

QUALIFICATION & LEVEL: NCEA Level 3

PREREQUISITES: Year 11 and/or Year 12 Physical Education studied and completed satisfactorily.



COURSE OUTLINE

This is an NCEA Level 3 Course. The course incorporates five Achievement Standards offering between 19-23 Credits.

Fitness Training

Physical Education 3.3: Evaluate the effectiveness of a performance improvement programme (4 credits)

Physical Education 3.9: Devise strategies for a physical activity outcome (4 credits)

Outdoor Education

Physical Education 3.4: Demonstrate quality performance of a physical activity in an applied setting (4 credits)

Physical Education 3.7: Analyse issues in safety management for outdoor activity to devise safety management strategies (3 credits)

Physical Activity and Society

Students will complete one of the following standards. They may do both if time permits.

Physical Education 3.1: Evaluate physical activity experiences to devise strategies for lifelong well-being (4 credits).

Physical Education 3.5: Examine a current physical activity event/trend, issue and its impact on New Zealand Society (4 credits)

COURSE OUTCOMES

Can lead to a range of tertiary study and sports related jobs.

ASSESSMENT PROCEDURES

Internal Achievement Standards will be used to assess this course.

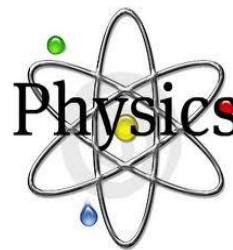
Course Costs

An outdoor education camp will be held during Term 3. The final cost of this can vary depending on the activity chosen. If it is Snowboarding then the camp can cost approximately \$490 but it can be reduced by fundraising should the students choose to do so. Depending on cost and snow if this doesn't take place then there will be another camp related to an outdoor activity like rock climbing or something similar. Numbers can also affect the final cost.

FOR FURTHER INFORMATION SEE:

Mrs A. Stiven

astiven@bmc.school.nz



PHYSICS

QUALIFICATION & LEVEL: NCEA Level Three

PREREQUISITES: Successful completion of both Level Two Physics **and** Mathematics.

COURSE OUTLINE

The course is based on both theoretical and experimental components.

The Content: Four Achievement Standards chosen from the following:

- Physics AS (3.1) Carry out a practical investigation to test a physics theory relating two variables in a non-linear relationship. Internal 4 Credits.
- Physics AS (3.2) Demonstrate understanding of the application of physics to a selected context. Internal 3 Credits
- Physics AS (3.3) Demonstrate understanding of wave systems. External 4 Credits.
- Physics AS (3.4) Demonstrate understanding of mechanical systems. External 6 Credits.
- Physics AS (3.5) Demonstrate understanding of Modern Physics. Internal 3 Credits.
- Physics AS (3.6) Demonstrate understanding of electrical systems. External 6 Credits.

COURSE OUTCOMES

There are many careers which require physics to have been taken at school in Years 12 and 13 and University. Such careers are found in the medical field, industry, electronics, engineering and teaching to name but a few.

ASSESSMENT PROCEDURES

A combination of internal and external Achievement Standards is used to assess student achievement. The selection of Standards may vary from year to year depending on the nature of the class.

COURSE COSTS

Course Manual approximately \$30.00

FOR FURTHER INFORMATION SEE:

Mrs S Burke

sburke@bmc.school.nz

CONSTRUCTION AND MECHANICAL TECHNOLOGIES (WORKSHOP)



QUALIFICATION & LEVEL: NCEA Level Three

PREREQUISITES: This course is open to any Year 13 student who has an interest in the subject although it is preferable that they have completed at least Year 12 Hard Materials Technology and Year 11 / 12 Design and Visual Communication (graphics) as a high level of existing skill is assumed.

COURSE OUTLINE

Pupils will be required to make one set project.

This course is made up of Level 3 NCEA Achievement Standards

COURSE OUTCOMES

- Further study at Polytechnic in Design related courses.
- Various trades and apprenticeships.

The Achievement Standards in this course can count towards University Entrance. When assessed by Achievement Standards, this course is an approved course for University Entrance. (Students need 14 credits in 3 approved courses as part of the University Entrance Requirements.)

ASSESSMENT PROCEDURES

Hard Materials Technology is internally assessed on the students work throughout the year.

COURSE COSTS

To make and take home the NCEA projects there is a cost of \$120.00 to study this course. This will cover the cost for basic materials needed to manufacture two set projects. If pupils want to add on design features they will need to provide these themselves. (Glass for cabinet doors and tables, locks, handles and catches).

FOR FURTHER INFORMATION SEE:

Mr M. Murrell

mmurrell@bmc.school.nz