VCE COURSE INFORMATION

Mullauna College

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WELCOME TO THE VCE

The Victorian Certificate of Education is a challenging experience. It is also an enjoyable and maturing experience. Most people who attempt it succeed in satisfactorily completing its requirements.

This handbook is designed to help you make a good start. It introduces you to the structure/requirements of the VCE and subjects/courses offered at Mullauna so that you can design the right course for your needs. The handbook is a small but important part of the information you'll receive this year - so read it carefully. Do not be afraid to ask questions. Good luck with your decision-making and welcome to the VCE.

WHO RUNS THE VCE?

While the College administers the VCE at the school level, at the state level the Victorian Curriculum and Assessment Authority (VCAA) is the body that sets down all the requirements for the VCE. The College cannot vary these requirements. When you enrol in the VCE at Mullauna you will also enrol with the VCAA and in doing so you will agree to follow all of its regulations, as well as those of the College. Students will receive a VCE Student Handbook outlining these regulations.

THE STRUCTURE OF THE VCE

The VCE is a two-year course of study:

Year 11

In Year 11 students at Mullauna must attempt 12 units of study over the year as follows:

- Six Unit 1 studies in Semester 1
- Six Unit 2* studies in Semester 2

**While it is possible to change studies at the end of Unit 1 it is expected that students will follow through to Unit 2 in each study.*

Year 12

In Year 12, students may do 12 units but most attempt 10 units over the year as follows:

- Five Unit 3 studies in Semester 1
- Five Unit 4 studies in Semester 2
- You must do Units 3+4 of an English plus 4 other 3+4 studies, ie. **Five** Unit 3+4 sequences.
- The **minimum** number of studies you can do in Year 12 is an English Units 3+4 plus three other Unit 3+4 studies, ie. **Four** Unit 3+4 sequences. Any less and you cannot get the VCE or an Australian Tertiary Admission Ranking (ATAR).
- All Unit 3+4 studies are sequential (ie. you cannot do them individually*)*

This means that most students at Mullauna will attempt 22 units over the two years.

Accelerated VCE Subjects

Year 11 students may attempt one Unit 3+4 study in Year 11.

Year 10 students may attempt one Unit 1+2 study in Year 10. There is an application process that students need to complete.

VCE COURSE REQUIREMENTS

The course over two years must include **four units of English or EAL.**

The remaining choices are up to you.

SATISFACTORY COMPLETION

In order to gain your VCE you must meet the following requirements over two years:

- Obtain an "S" in **16** units of study (remember you will attempt 22 units of study)
- Obtain an "S" in **3** units of an English (including an English Unit 3+4 if you want an ATAR)
- Obtain an "S" in at least **three** sequences of Units 3+4 in addition to English.

The decisions to award an "S" or "N" are totally school based.

VCE ASSESSMENT

Units 1 and 2

Outcomes are assessed at school level by your teachers, using assessment tasks and marking systems decided on by the school (using advice from the VCAA). It is College policy to have internal examinations at Year 11.

Units 3 and 4 School Assessment

Outcomes are assessed at school level by your teachers, using designated School Assessed Coursework and School Assessed Tasks which are set down by the VCAA. Outcomes and the School Assessed Coursework used to assess them are allocated marks by the VCAA adding up to 100 for most units (3+4).

Unit 3 and 4 Examinations

External Exams are an important part of the VCE. Each study includes one examination. Examinations may contribute at least 50% to the study score. As well as being a part of your study score, exams will be used to moderate your subject's school results along with the GAT.

General Achievement Test (GAT)

The GAT is a test of general ability which all Unit 3+4 students are expected to do. The VCAA issues a booklet for Unit 3+4 students explaining the details of the GAT each year. You will receive GAT practice at school prior to the test. The College also timetables a practice GAT for all students undertaking a Unit 3/ 4 subject.

ATAR

The Victorian Tertiary Admissions Centre (VTAC) calculates the ATAR, and it is used by **universities** and **TAFE Colleges** to select students for courses. It is a number between 0 and 100 based on Unit 3+4 study scores after scaling by VTAC. It is complex to explain how it is calculated but if you're interested the VTAC website provides more information.

CONSTRUCTING YOUR COURSE

Now you have an understanding of the VCE you can start constructing your own VCE course.

1. Begin with Yourself

Your Interests

Which studies have you enjoyed the most in the past, what hobbies do you have which might be reflected in VCE studies and what studies do you think would match your interests?

Your abilities

Which studies have you performed best at? Your results are a good indicator here. It is useful to draw up a list of studies you have done well in and consider whether these are the ones you wish to go further with.

Your needs

Which studies do you need for jobs and/or university or TAFE courses that you hope to go on to after leaving school? If you do not know what you want to do you should do some thinking and some research in order to make your mind up. Once you have made a broad decision then you can find out the **prerequisites**, or **compulsory studies** you need to get into your chosen area. If you are still not sure then go with those studies which reflect your interests and abilities.

2. What the College Offers

Examine the list of studies that Mullauna offers on page 7. Select from the list the studies you are interested in and then turn to pages 8 to 57 (they are in alphabetical order) to find more detail on each one. Now use a highlighter pen to mark the studies that you might consider as part of your VCE course. In this way you will design your own course or program subject by subject.

3. Vocational Education and Training (VET) Courses

One of the major changes in recent years in the VCE is the incorporation of VET into the mainstream VCE. Mullauna College is offering a VET program through the Mullum VET Cluster. More information can be found on their website: http://www.mullumvetcluster.com.au/

These programs offer students:

- Study which can count towards completing the VCE
- A **nationally accredited Certificate** in the particular vocational area.
- Scored VET studies may be included in the best four component of the ATAR. Unscored VET studies may provide 10% of the best four average.

4. Other Vital Information

4.1 There are some studies with the same title that use different materials. For these studies you can get credit **once only** in the VCE.

4.2 As you select your studies be aware that many Tertiary courses give **bonuses** or **increments** for certain studies. There are so many and they vary so much that it is impossible to list them here. Simply be aware of these studies when you investigate the Tertiary destinations you are aiming at. Information relating to **bonuses** or **increments** is available from the Careers Office.

4.3 Able students are encouraged to take **six** Unit 3+4 Studies to **maximise** their ATAR. The best way to do this is to take one Unit 3+4 Study in Year 11. In addition to enhancing your ATAR this also introduces you to the assessment processes related to Unit 3+4 Studies.

4.4 Able students in Year 10 are encouraged to attempt one Unit 1+2 study. *There is a selection process for this at the end of year 9.* In addition to introducing the assessment processes related to the VCE, this option also prepares students for taking a Unit 3+4 study in Year 11, thus enhancing their ATAR score in Year 12.

5. Information for the College Promotion Policy

Promotion to Year 11

In order to gain promotion from Year 10 to 11, a student must satisfactorily complete a minimum of 12 units out of the total of 14 semester units undertaken in Year 10.

Units satisfactorily completed must include:

- Two units of English
- One unit of Mathematics

Promotion to Year 12

In order to gain promotion from Year 11 to Year 12, students must successfully complete a minimum of 8 of the total of 12 semester units undertaken in Year 11.

READING LIST

The following resources provide more information on tertiary course prerequisites

- 2015 Job Guide.
- 2016 VTAC Guide.
- Computer Programs: JAC, OZJAC, COURSELINK (available on-line at www.vcaa.vic.edu.au)
- Tertiary Entrance Requirements as printed in daily newspapers:
- Year 10 published late July for 3 years hence.
- Year 11 published late July for 2 years hence.

WHO TO ASK FOR HELP

1. There will be planned activities such as the Year 10 Information Night, VCE Information Night and Counselling sessions in which you will receive help to design your course.
2. Classroom teachers should be the first people you talk to about your potential in particular studies.
3. The following staff are available for any specific help you need:
    - Years 10, 11, 12 Coordinators.
    - Penny Nevill - VET coordinator
    - Susanne Morelli – Careers Coordinator.

VCE AT MULLAUNA COLLEGE

VCE Requirements

The following conditions must be met when students select their VCE semester units for Years 11 (Units 1+2) and 12 (Units 3+4):

- Students must do **4** units of English or EAL
- Students must have a Unit 3 & 4 English or EAL sequence
- Students must have **3** other sequences of units 3+4 in their VCE.

The following VCE subjects* are offered:

Accounting (1+2)

Biology

Business Management

Chemistry

Food Studies
German (via Distance Education)
Health & Human Development

History - Twentieth Century (1+2)

Legal Studies

Mathematics (1+2)

- Foundation Mathematics
- General Mathematics or
- Mathematical Methods (CAS)

Mathematics (3+4)

- Further Mathematics
- Mathematical Methods (CAS)
- Specialist Mathematics (delivered by VVLN)

Media

Physical Education (Combined Unit 1-4)

Physics (Combined Unit 1-4)

Psychology

Studio Arts

Visual Communication & Design (Combined Unit 1-4)

**Please note subjects will only run if selected by enough students.*

ACCOUNTING

Units 1+2

Course Description

This subject focuses on:

- The role of accounting in business.
- Ethical considerations in decision making.
- How transactions are recorded and reported.
- How performance is evaluated using the financial and non-financial indicators of performance.
- ICT is utilised in all units of Accounting. (Excel being the focus)

Unit 1 – The role of accounting

Individuals should consider a range of factors before committing to or continuing in a business venture. In this area of study students investigate the reasons for establishing a business, and possible alternatives to operating a business. They explore types of business ownership, factors that lead to the success or failure of a business, sources of business finance and ethical considerations. They develop an understanding of the role and importance of accounting in operating a business, and consider how accounting is used to provide information for making operational and investment decisions.

Outcomes

In this subject you will:

- Describe the resources required to establish and operate a business.
- Select and use accounting reports and other information to discuss the success or otherwise of the business.

Unit 2 – Recording financial data & reporting accounting information for a service business

Students investigate the role of accounting in generating financial data and accounting information. They use the accrual method for determining profit for a service business operating as a sole proprieter with cash and credit transactions. Both manual methods and ICT are used to record financial data and report accounting information. They apply accounting assumptions and qualitative characteristics, and use business documents and indicators to measure business performance in order to consider the success or failure of the business.

Outcomes

In this subject you will:

- Identify and record financial data.
- Report and explain accounting information for a service business.
- Suggest and apply appropriate financial and non-financial indicators to measure business performance.

BIOLOGY

Units 1+2

Course Description

Content
Biology Unit 1 + 2 explores the processes of life, from the molecular world of the cell to that of the whole organism and how life is maintained. It covers the dynamic relationships between organisms and their interactions with the non-living environment.

Unit 1 - How do living things stay alive?
This unit focuses on:

- Cell size, structure and function
- Crossing the plasma membrane
- Energy transformations
- A study of a selected functioning system in a mammal and in a plant
- Survival through adaptations and regulation
- Organizing biodiversity
- Relationships between organisms within an ecosystem

Outcomes
In this unit you will:

- Use appropriate biological language to communicate their ideas
- Describe the structures and processes involved in cellular functioning
- Detail the functions of a selected mammalian system and a plant system
- Plan and undertake biological investigations
- Explain the relationship between the features of organisms and their functions
- Analyse and evaluate data, methods and scientific models
- Design and undertake an investigation related to the survival of an organism or species, and draw conclusions based on evidence from collected data.

Unit 2: How is continuity of life maintained?
This unit focuses on:

- Asexual and sexual reproduction
- Cell growth and cell differentiation
- Genomes, genes and chromosomes
- Genotypes and phenotypes
- Genetic inheritance and genetic decision-making

Outcomes
In this unit you will:

- Use appropriate biological language to communicate their ideas
- Describe how genes are responsible for characteristics observed
- Plan and undertake biological investigations
- Outline how genetic characteristics are inherited
- Analyse and evaluate data, methods and scientific models
- Investigate in detail a genetic issue

BIOLOGY

Units 3+4

Course Description

Unit 3+4 Biology draws on increasingly specialised fields of bioscience such as biochemistry, neuroscience, genetics, evolutionary biology, and molecular biology.

Unit 3: How do cells maintain life?
This unit focuses on:

- The workings of the cell from several perspectives to understand the capabilities and the limitations of living organisms whether animal, plant, fungus or microorganism.
- Key molecules and biochemical pathways involved in cellular processes both within the cell and between cells.
- The human immune system and the interactions between its components to provide immunity to a specific antigen.

Outcomes
In this unit you will:

- Explain the dynamic nature of the cell in terms of key cellular processes including regulation, photosynthesis and cellular respiration, and analyse factors that affect the rate of biochemical reactions. This outcome incudes a written report which is based on practical investigations.
- Apply a stimulus-response model to explain how cells communicate with each other, outline human responses to invading pathogens, distinguish between the different ways that immunity may be acquired, and explain how malfunctions of the immune system cause disease.

Unit 4: How does life change and respond to challenges over time?
This unit focuses on:

- The continual change and challenges to which life on Earth has been subjected by examining change in life forms, investigating the relatedness between species and consider the impact of various change events on a population's gene pool.
- The structural and cognitive trends in the human fossil record and the interrelationships between human biological and cultural evolution.
- The biological consequences, and social and ethical implications, of manipulating the DNA molecule and applying biotechnologies for both the individual and the species.

Outcomes
In this unit you will:

- Analyse evidence for evolutionary change, explain how relatedness between species is determined, and elaborate on the consequences of biological change in human evolution.
- Describe how tools and techniques can be used to manipulate DNA, explain how biological knowledge is applied to biotechnical applications, and analyse the interrelationship between scientific knowledge and its applications in society.
- Carry out an investigation related to biological change and/or continuity. The findings of the investigation are presented in a scientific poster format.

BUSINESS MANAGEMENT

Units 1+2

Course Description

In studying VCE Business Management, students develop knowledge and skills that enhance their confidence and ability to participate effectively as socially responsible and ethical members, managers and leaders of the business community, and as informed citizens, consumers and investors. The study of Business Management leads to opportunities across all facets of the business and management field such as small business owner, project manager, human resource manager, operations manager or executive manager.

Unit 1 – Planning a Business
This unit focuses on:

- How business ideas are created
- How conditions can be fostered for new business ideas to occur
- Gaps in the market, technological developments and changing customer needs

Outcomes
In this unit you will:

- Complete a written test to explain how and why business ideas are created
- Investigate how the internal environment relates to the external environment and the effects of this relationship on planning a business.
- Explore the factors within the internal environment and consider how planning decisions may have an effect on the ultimate success of a business.

Unit 2 – Establishing a Small Business
This unit focuses on:

- The legal and financial considerations that are vital to establishing a business
- The implications for the business if these requirements are not met
- The essential features of effective marketing
- Applying key knowledge to contemporary business case studies

Outcomes
In this unit you will:

- Explain the importance of establishing a business that complies with all legal and financial requirements
- Develop a marketing plan.
- Undertake an analysis of the staffing needs of a business and evaluate the benefits and limitations of management strategies in this area.

BUSINESS MANAGEMENT

Units 3+4

Course Description

In studying VCE Business Management, students develop knowledge and skills that enhance their confidence and ability to participate effectively as socially responsible and ethical members, managers and leaders of the business community, and as informed citizens, consumers and investors. The study of Business Management leads to opportunities across all facets of the business and management field such as small business owner, project manager, human resource manager, operations manager or executive manager.

Unit 3 – Managing a Business
This unit focuses on

- The key characteristics of businesses and their stakeholders
- The potential conflicts between and the different demands of stakeholders on a business
- A range of management styles and management skills that may be used
- Applying these concepts to contemporary business case studies

Outcomes
In this unit you will:

- Answer structured questions that will test your knowledge of various businesses and their stakeholders
- Be tested on your ability to recall information about managing employees affectively, including various motivation factors
- Analyse a real business to assess how effective its operations management function is.

Unit 4 – Transforming a Business
This unit focuses on:

- The use of Key Performance Indicators (KPIs)
- Models & strategies to undertake and manage change
- The importance of leadership in change
- A recent case study and applying theory to the practical example

Outcomes
In this unit you will:

- Answer structured questions that will test your knowledge of why change occurs, use KPIs to evaluate performance as a result of change
- Be tested on your ability to recall information about the effectiveness of a variety of strategies used by managers to implement change and the effect of change on stakeholders of a business

CHEMISTRY

Units 1+2

Course Description

This subject focuses on:

- What makes up the world around us, and the chemical processes involved.
- Chemical theories and models are used to explain chemical reactions.
- The production and development of energy, clear air and water, food, medicine and new materials.

Unit 1 – How can the diversity of materials be explained?

This unit focuses on:

- Elements, matter and the Periodic Table
- Covalent molecules
- Research Investigation

Outcomes

In this unit you will:

- Students should be able to relate the position of elements in the periodic table to their properties, investigate the structures and properties of metals and ionic compounds, and calculate mole quantities.
- Students should be able to investigate and explain the properties of carbon lattices and molecular substances with reference to their structures and bonding, use systematic nomenclature to name organic compounds, and explain how polymers can be designed for a purpose.
- Students should be able to investigate a question related to the development, use and/or modification of a selected material or chemical and communicate a substantiated response to the question.

Unit 2 – What makes water such a unique chemical?

This unit focuses on:

- Water
- Practical Investigation

Outcomes

In this unit you will:

- Students should be able to relate the properties of water to its structure and bonding and explain the importance of the properties and reactions in water in selected contexts.
- Students should be able to measure the amount of dissolved substances in water and analyse water samples for salt, organic compounds, acids and bases.
- Students will design and undertake a quantitative laboratory investigation related to water quality and draw conclusions based on evidence from collected data.

CHEMISTRY

Units 3+4

Course Description

This subject focuses on:

- The options for energy production
- Optimising the yield of a chemical product.
- Explaining and categorising carbon compounds
- The chemistry of food

Unit 3: How can chemical processes be designed to optimise efficiency?

This unit focuses on:

- Chemical energy resources
- Electrolytic reactions
- Analysis of manufacturing processes

Outcomes

In this unit you will:

- Analyse and compare fuels quantitatively with reference to combustion products and energy outputs.
- Apply knowledge of the electrochemical series to design, construct and test galvanic cells.
- Apply rate and equilibrium principles to predict how the rate and extent of reactions can be optimised.
- Explain how electrolysis is involved in the production of chemicals and the recharging of batteries.

Unit 4: How are organic compounds categorised, analysed and used?

This unit focuses on:

- Organic compounds
- Food molecules
- A student designed practical investigation

Outcomes

In this unit you will:

- Compare the structures and reactions of the major organic families of compounds and design reaction pathways for the synthesis of organic molecules.
- Deduce the structure of organic compounds using instrumental analysis data
- Distinguish the chemical structures of key food molecules, analyse the chemical reactions involved in their metabolism and calculate their energy content using calorimetry.

ENGLISH

Units 1+2

Course Description

The study of English contributes to the development of literate individuals capable of critical and creative thinking. Students engage with texts from the contemporary world and from the past, and using texts from Australia and from other cultures, students further develop a sense of themselves, their world and their place within it. English helps equip students for participation in a democratic society and the global community. This study also develops students' ability to create and analyse texts, moving from interpretation to reflection and critical analysis.

Unit 1

On completion of this course students are able to:

- Read and respond to texts analytically and creatively;
- Analyse arguments and the use of persuasive language in texts;
- Create their own texts intended to position audiences;
- Develop their skills in creating written, spoken and multimodal texts.

Outcomes

In this unit students will:

- **Read and create texts:** one analytical and one creative response to set texts.
- **Analyse and present an argument:** a written analysis of the use of argument and persuasive language in texts as well as an oral presentation intended to position an audience.

Unit 2

On completion of this course students are able to:

- Compare the presentation of ideas, issues and themes in texts
- Analyse arguments presented and the use of persuasive language in texts
- Create their own texts intended to position audiences
- Develop their skills in creating written, spoken and multimodal texts.

Outcomes

In this unit students will:

- **Read and compare texts:** a written comparative analytical response to set texts.
- **Analyse and present an argument:** a written analysis of the use of argument and persuasive language in texts as well as a written persuasive text that presents an argument or viewpoint.

ENGLISH

Units 3+4

Course Description

The English language is central to the way in which students understand, critique and appreciate their world. In the subject of English, students refine their language skills through thinking, reading, writing, speaking and listening. Students extend their competence in using Standard Australian English to meet the demands of further study, the workplace, and their own needs and interests. They communicate ideas, feelings, observations and information effectively, both orally and in writing, to a range of audiences.

Unit 3

On completion of this course students are able to:

- Read and respond to texts analytically and creatively;
- Analyse arguments and the use of persuasive language in texts;
- Create their own texts intended to position audiences;
- Explain choices they have made as authors;
- Analyse how the authors of texts create meaning and understand the different ways in which texts can be interpreted;
- Apply the conventions of oral presentation in the delivery of spoken texts;
- Develop their skills in creating written, spoken and multimodal texts.

Outcomes

In this unit students will:

- **Read and create texts:** one analytical and one creative response to set texts.
- **Analyse and compare the use of argument:** a written analysis of the use of argument and persuasive language in texts that present a point of view on a current media issue.

Unit 4

On completion of this course students are able to:

- Compare the presentation of ideas, issues and themes in texts
- Understand the features of comparative analysis: structure, conventions and language, including relevant metalanguage
- Analyse arguments presented and the use of persuasive language in texts
- Create their own texts intended to position audiences
- Develop their skills in creating written, spoken and multimodal texts.

Outcomes

In this unit students will:

- **Read and compare texts:** a written comparative analytical response to set texts.
- **Construct a sustained and reasoned point of view:** an oral presentation using sound argument and persuasive language on a current issue with a written statement articulating the intention of decisions made in the planning process.

ENGLISH AS AN ADDITIONAL LANGUAGE

Units 1+2

Course Description

EAL recognises and values the social and cultural diversity of students who come from a language background other than English. This subject extends the key skills of reading, writing, creative and critical thinking, and speaking and listening. The course supports a focus on learning situations in which students take an increasing responsibility for their own learning. The EAL curriculum enables students to draw on their language proficiency to meet the demands of further study, the workplace, and their own needs and interests. This study also develops student's ability to create and analyse texts, moving from interpretation to reflection and critical analysis.

Unit 1
On completion of this course students are able to:

- Read and respond to texts analytically and creatively;
- Analyse arguments and the use of persuasive language in texts;
- Create their own texts intended to position audiences;
- Develop their skills in creating written, spoken and multimodal texts;
- Develop listening skills and comprehension of spoken texts.

Outcomes
In this unit students will:

- **Read and create texts:** one analytical and one creative response to set texts.
- **Analyse and present an argument:** short response answers and a written analysis of the use of argument and persuasive language in texts, including spoken text, as well as an oral presentation intended to position an audience.

Unit 2
On completion of this course students are able to:

- Compare the presentation of ideas, issues and themes in texts;
- Analyse arguments presented and the use of persuasive language in texts;
- Create their own texts intended to position audiences;
- Develop their skills in creating written, spoken and multimodal texts;
- Develop listening skills and comprehension of spoken texts.

Outcomes
In this unit students will:

- **Read and compare texts:** a written comparative analytical response to set texts.
- **Analyse and present an argument:** a written analysis of the use of argument and persuasive language in texts, including spoken text, as well as a written persuasive text that presents an argument or viewpoint.

ENGLISH AS AN ADDITIONAL LANGUAGE

Units 3+4

Course Description

EAL recognises and values the social and cultural diversity of students who come from a language background other than English. This subject extends the key skills of reading, writing, creative and critical thinking, and speaking and listening. EAL supports a focus on learning situations in which students take an increasing responsibility for their own learning. The curriculum enables students to draw on their language proficiency to meet the demands of further study, the workplace, and their own needs and interests. They communicate ideas, feelings, observations and information effectively, both orally and in writing, to arrange of audiences.

Unit 3
On completion of this course students are able to:

- Read and respond to texts analytically and creatively;
- Analyse arguments and the use of persuasive language in texts;
- Create their own texts intended to position audiences;
- Explain choices they have made as authors;
- Analyse how the authors of texts create meaning and understand the different ways in which texts can be interpreted;
- Apply the conventions of oral presentation in the delivery of spoken texts;
- Develop their skills in creating written, spoken and multimodal texts
- Develop listening skills and comprehension of spoken texts.

Outcomes
In this unit you will:

- **Read and create:** one analytical and one creative response to set texts.
- **Analyse and compare the use of argument:** short response questions, note form summaries and a written analysis of argument and persuasive language.
- **Comprehend a spoken text:** short response answers and note form summaries in response to spoken texts.

Unit 4
On completion of this course students are able to:

- Compare the presentation of ideas, issues and themes in texts;
- Understand the features of comparative analysis: structure, conventions and language, including relevant metalanguage;
- Analyse arguments presented and the use of persuasive language in texts;
- Create their own texts intended to position audiences;
- Develop their skills in creating written, spoken and multimodal texts;

Outcomes
In this unit students will:

- **Read and compare texts:** a written comparative analytical response to set texts.
- **Construct a sustained and reasoned point of view:** an oral presentation using sound argument and persuasive language on a current issue with a written statement articulating the intention of decisions made in the planning process.

FOOD STUDIES

Units 1+2

Course Description

This subject focuses on food from historical and cultural perspectives. Students will investigate the roles of food through time and across the world. Practical work is integral to Food Studies and includes cooking, demonstrations, creating and responding to design briefs, dietary analysis, food sampling, taste testing, sensory analysis, product analysis and scientific experiments.

Unit 1 – Food origins
This unit focuses on:

- Exploring food from around the world.
- The origins and cultural roles of food, from early civilizations through to modern times.
- Exploring factors that influence food availability.
- The history and culture of food in Australia.

Outcomes
On completion of this unit students should be able to:

- Identify and explain major factors in the development of global food supply.
- Demonstrate adaptations of selected food from earlier cuisines.
- Describe patterns of change in Australia's food industries and cultures.
- Use foods indigenous to Australia and those introduced through migration.

Unit 2 – Food makers
This unit focuses on:

- Commercial food production in Australia, encompassing primary production and food processing and manufacturing.
- Exploring food production on a domestic and small scale.

Outcomes
On completion of the units students should be able to:

- Describe Australia's major food industries and analyse relationships between food suppliers and consumers.
- Compare and evaluate similar foods prepared in different settings.
- Design and create a food product that illustrates potential adaptation in a commercial context.

FOOD STUDIES

Units 3+4

Course Description

This subject focuses on the many roles and everyday influences of food. Students will investigate the functional properties of food, the physiology of eating and appreciating food and the microbiology of digestion. They will also study influences of food choices and how individuals respond to food trends. Challenges regarding food production and feeding the world's population are examined. Practical work is integral to Food Studies and includes cooking, demonstrations, creating and responding to design briefs, dietary analysis, food sampling, taste testing, sensory analysis, product analysis and scientific experiments.

Unit 3 – Food in daily life
This unit focuses on:

- The science of food during food preparation and digestion.
- The scientific rationale behind the Australian Guide to Healthy Eating.
- How our eating patterns develop and how they can be positively influenced.

Outcomes
On completion of this unit students should be able to:

- Explain the processes of eating and digesting food and the absorption of macronutrients.
- Explain the causes and effects of food allergies, intolerances and food contamination.
- Apply principles of nutrition and food science in the creation of food products.
- Explain and analyse factors affecting food access and choice.
- Analyse the influences that shape an individual's food values, beliefs and behaviours.
- Apply practical skills to create a range of healthy meals for children and families.

Unit 4 – Food issues, challenges and futures
This unit focuses on:

- Debates about global and Australian food systems.
- Issues about the environment, ecology, ethics, farming practices, the challenges of food security, food safety, food wastage, the use and management of water and land.
- Food information and misinformation.
- The development of food knowledge, skills and habits.

Outcomes
On completion of this unit students should be able to:

- Explain a range of food systems.
- Respond to a selected debate with analysis of problems and proposals for future solutions.
- Apply questions of sustainability and ethics to the selected food issue.
- Create a food repertoire that reflects personal food values and goals.
- Explain a variety of food information contexts
- Analyse the formation of food beliefs
- Evaluate a selected food trend, fad or diet
- Create food products that meet the Australian Dietary Guidelines.

FOUNDATION MATHEMATICS

Unit 1 & 2

Course Description

Foundation Mathematics provides for the continuing mathematical development of students entering VCE and who do not necessarily intend to undertake Unit 3 and 4 studies in VCE Mathematics in the following year. This course is designed to complement General Mathematics and Mathematical Methods. Students completing this course would need to undertake additional targeted mathematical study in order to attempt Further Mathematics Units 3 and 4.

In Foundation Mathematics there is a strong emphasis on the use of mathematics in practical contexts encountered in everyday life in the community, at work and at study.

Outcomes

On completion of this unit:

- Students should be able to use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts.
- Students should be able to apply mathematical procedures to solve practical problems in both familiar and new contexts, and communicate their results.
- Should be able to select and use technology to solve problems in practical contexts.

Unit 1

This unit focuses on:

- Space, shape and design
- Patterns and number

Unit 2

This unit focuses on:

- Data
- Measurement

FURTHER MATHEMATICS

Unit 3 & 4

Course Description

Entry to this course requires students to have successfully completed General Mathematics or Mathematical Methods Unit 1 & 2.
This course may be taken by itself or in conjunction with Mathematical Methods.
This subject focuses on:

- Developing an understanding of functional mathematics including financial arithmetic and data analysis.
- Developing an ability to work and communicate mathematically.
- Developing an ability to problem solve.

Outcomes

On completion of this unit:

- Students should be able to define and explain key concepts and apply related mathematical techniques and models in routine contexts.
- Students should be able to select and apply the mathematical concepts, models and techniques in a range of contexts of increasing complexity.
- Students should be able to select and appropriately use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling or investigative techniques or approaches.

Unit 3

This unit focuses on:

- Data analysis
- Financial modeling

Unit 4

This unit focuses on:

- Geometry and measurement
- Networks and Decision Mathematics

GENERAL MATHEMATICS

Unit 1 & 2

Course Description

- This course is for students who require a real life understanding of Mathematics.
- Entry to this course requires students to have successfully completed Year 10 Mathematics.
- This course may be taken by itself or in conjunction with Mathematical Methods.

This subject focuses on:

- Developing an understanding of functional mathematics including financial arithmetic, data analysis, measurement and graphing.
- Developing an ability to work and communicate mathematically.
- Developing an ability to solve problems.

Outcomes

On completion of this unit:

- Students should be able to define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures.
- Students should be able to select and apply mathematical facts, concepts, models and techniques from the topics covered in the unit to investigate and analyse extended application problems in a range of contexts.
- Students should be able to select and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling or investigative techniques or approaches.

Unit 1

This unit focuses on:

- Computational Arithmetic
- Data Analysis and Statistics
- Financial Arithmetic
- Sequences
- Algebra

Unit 2

This unit focuses on:

- Shape and measurement
- Applications of Trigonometry
- Bivariate data
- Graphs and Networks
- Inequalities and Linear Programming

GERMAN (via Distance Education)

Units 1+2

Course Description

The study will develop the students ability to understand and use a language which has long been recognized as a world language of culture, music, theology and philosophy, as well as a key language in the fields of science, medicine, engineering, architecture, economics and technology. German-speaking countries have emerged as strong international leaders in trade, commerce, politics, environment and sustainability.

This study is designed to enable students to:

- Communicate with others in German in interpersonal, interpretive and presentational contexts;
- Understand the relationship between language and culture;
- Compare cultures and languages and enhance cultural awareness;
- Understand and appreciate the cultural contexts in which German is spoken;
- Learn about language as a system and themselves as language learners;
- Make connections between different languages, knowledge and ways of thinking;
- Become part of multilingual communities by applying language learning to social and leisure activities, life-long learning and the world of work.

Unit 1 – outcomes

In this unit you will

- Exchange meaning in a spoken interaction.
- Interpret information from two texts on the same subtopic presented in German, and respond in writing in German and in English.
- Present information, concepts, ideas in writing in German on the selected subtopic and for a specific audience and purpose.

Unit 2 - outcomes

In this unit you will

- Respond in writing in German to spoken, written or visual texts presented in German.
- Analyse and use information from written, spoken or visual texts to produce an extended written response in German.
- Explain information, ideas and concepts orally in German to a specific audience about an aspect of culture within communities where German is spoken.

GERMAN (via Distance Education)

Units 3+4

Course Description

The study will develop the students ability to understand and use a language which has long been recognized as a world language of culture, music, theology and philosophy, as well as a key language in the fields of science, medicine, engineering, architecture, economics and technology. German-speaking countries have emerged as strong international leaders in trade, commerce, politics, environment and sustainability.

This study is designed to enable students to:

- Communicate with others in German in interpersonal, interpretive and presentational contexts;
- Understand the relationship between language and culture;
- Compare cultures and languages and enhance cultural awareness;
- Understand and appreciate the cultural contexts in which German is spoken;
- Learn about language as a system and themselves as language learners;
- Make connections between different languages, knowledge and ways of thinking;
- Become part of multilingual communities by applying language learning to social and leisure activities, life-long learning and the world of work.

Unit 3 - outcomes

In this unit you will

- Participate in a spoken exchange in German to resolve a personal issue.
- Interpret information from texts and write responses in German.
- Express ideas in a personal, informative or imaginative piece of writing in German.

Unit 4 - outcomes

In this unit you will

- Share information, ideas and opinions in a spoken exchange in German.
- Analyse information from written, spoken and viewed texts for use in a written response in German.
- Present information, concepts, ideas in evaluative or persuasive writing on an issue in German.

HEALTH AND HUMAN DEVELOPMENT

Units 1+2

Course Description

This study enables students to:

- understand the complex nature of health and wellbeing, and human development
- develop a broad view of health and wellbeing, incorporating physical, social, emotional, mental and spiritual dimensions, and biological, sociocultural and environmental factors
- examine how health and wellbeing may be influenced across the lifespan by the conditions into which people are born, grow, live, work and age
- develop health literacy to evaluate health information and take appropriate and positive action to support health and wellbeing and manage risks
- develop understanding of the Australian healthcare system and the political and social values that underpin it

Unit 1 – Understanding health and wellbeing

This unit focuses on:

- a broad, multidimensional approach to health and wellbeing
- factors, such as, age, culture, religion, gender and socioeconomic status which influence health and wellbeing
- measurable indicators of population health, and the health status of Australians
- variations and inequalities in the health status of youth

Outcomes

Students will be able to:

- Respond to a series of structured questions that explain the multiple dimensions of health and wellbeing, explain indicators used to measure health status and analyse factors that contribute to variations in health status of youth
- Complete a case study in which nutritional knowledge and tools are used to select food and evaluate nutritional information
- Create a visual presentation based on detailed research of a particular focus area for improving youth health and wellbeing

Unit 2 – Managing health and development

This unit focuses on:

- changes and expectations that are part of the progression from youth to adulthood
- the application of health literacy skills through the examination of adulthood as a time change
- the Australian healthcare system and the ability to access and analyse health information

Outcomes

Students will be able to:

- Respond to a series of structured questions that explain developmental changes, analyse factors that contribute to healthy development and explain health and wellbeing as an intergenerational concept
- Create a visual presentation describing how to access Australia's healthcare system, explaining how it promotes health and wellbeing in the local community and outlining issues associated with the use of new health procedures and technologies

HEALTH AND HUMAN DEVELOPMENT

Units 3+4

Course description

This study enables students to:

- understand the complex nature of health and wellbeing, and illness
- develop a broad view of health and wellbeing, incorporating physical, social, emotional, mental and spiritual dimensions, and biological, sociocultural and environmental factors
- apply social justice principles to identify health and wellbeing inequities and analyse health and wellbeing interventions
- apply the objectives of the United Nations' Sustainable Development Goals to evaluate the effectiveness of health and wellbeing initiatives and programs
- propose and implement action to positively influence health and wellbeing, and human development, outcomes at individual, local, national and/or global levels.

Unit 3 – Australia's health in a globalized world
This unit focuses on:

- health, wellbeing and illness as a multidimensional and dynamic global concept
- the fundamental conditions required for health improvement
- variations in the health status of Australians
- health promotion and improvements in population health overtime in Australia and within a global context

Outcomes
Students will be able to:

- Respond to a series of structured questions that explain the complex, dynamic and global nature of health and wellbeing, interpret and apply Australia's health status data and analyse variations in health status
- Complete a case study in which changes to public health approaches are explained, improvements in population health overtime are analysed and health promotion strategies are analysed

Unit 4 – Health and human development in a global context
This unit focuses on:

- health and wellbeing, and human development in a global context
- changes in burden of disease over time
- the impact of sustainability and human development on global health
- global action to improve health and wellbeing and human development

Outcomes
Students will be able to:

- Respond to a series of structured questions that analyse similarities and differences in health status and burden of disease globally and the factors that contribute to differences in health and wellbeing
- Complete a case study in which the relationship between the SDGs and their role in the promotion of health and human development is analysed and the effectiveness of global aid programs is evaluated

HISTORY – 20th CENTURY

Units 1+2

Course Description

History is the practice of understanding and making meaning of the past. Students learn about their historical past, their shared history and the people, ideas and events that have created present societies and cultures. This study builds on a historical framework where students develop an understanding of their own time and place. It seeks to extend students' cultural, economic, social and political understanding. The study of history fosters the ability to ask searching questions, to engage in independent research, and to construct arguments about the past based on evidence.

Unit 1 - Twentieth-Century History (1918- 1939)

In Unit 1 students explore the nature of political, social and cultural change in the period between the world wars. World War One is regarded by many as marking the beginning of twentieth century history since it represented such a complete departure from the past and heralded changes that were to have an impact for decades to come. The post-war treaties ushered in a period where the world was, to a large degree, reshaped with new borders, and ideologies. These changes affected developments in Europe, the USA and the world. Economic instability caused by the Great Depression also contributed to the development of political movements

The period after World War One was characterised by significant social and cultural change in the contrasting decades of the 1920s and 1930s. New fascist governments used the military, education and propaganda to impose controls on the way people lived, to exclude particular groups of people and to silence criticism. In Germany, the persecution of the Jewish people became intensified

Outcomes

In this unit students will undertake two Areas of Study:

- Ideology and Conflict
- Social and Cultural Change

Assessment is based on:

- A historical inquiry,
- An analysis of primary sources,
- An analysis of historical representation,
- An essay

Unit 2 – Twentieth Century History (1945 - 2000)

In Unit 2 students explore the nature and impact of the Cold War and challenges and changes to existing political, economic and social arrangements in the second half of the twentieth century.

The establishment of the United Nations in 1945 was intended to avoid warfare, resolve political tensions and address threats to human life and safety.

The second half of the twentieth century was dominated by the competing ideologies of democracy and communism, setting the backdrop for the Cold War. The period also saw changes in many countries. New countries were created and independence was achieved through both military and diplomatic means. Old conflicts also continued and terrorism became increasingly global. The second half of the twentieth century also saw the rise of social movements that challenged existing values and traditions, such as the civil rights movement, feminism and environmental movements.

Outcomes

In this unit students will undertake two Areas of Study:

- Competing Ideologies
- Challenge and Change

Assessment is based on:

- A historical inquiry,
- An analysis of primary sources,
- An analysis of historical representation,
- An essay

LEGAL STUDIES

Units 1+2

Course Description

Legal Studies Unit 1 & 2 focuses on why laws are needed and where laws come from. Students also examine the various key concepts surrounding criminal and civil law.

Unit 1: Guilt and liability

This unit focuses on:

- legal foundations, such as the different types and sources of law and the existence of a court hierarchy in Victoria.
- key concepts of criminal law and civil law and apply these to actual and/or hypothetical scenarios
- an appreciation of the way in which legal principles and information are used in making reasoned judgments and conclusions about the culpability of an accused, and the liability of a party in a civil dispute.

Outcomes

On completion of this unit students will be able to:

- describe the main sources and types of law, and assess the effectiveness of laws
- explain the purposes and key concepts of criminal law
- use legal reasoning to argue the criminal culpability of an accused based on scenarios.
- explain the purposes and key concepts of civil law, and
- apply legal reasoning to argue the liability of a party in civil law based on actual and/or hypothetical scenarios.

Unit 2: Sanctions, remedies and rights

This unit focuses on:

- the enforcement of criminal law and civil law, the methods and institutions that may be used to determine a criminal case or resolve a civil dispute, and the purposes and types of sanctions and remedies and their effectiveness.
- a detailed investigation of two criminal cases and two civil cases from the past four years to form a judgment about the ability of sanctions and remedies to achieve the principles of justice.
- the way rights are protected in Australia and in another country, and possible reforms to the protection of rights. They examine a significant case in relation to the protection of rights in Australia.

Outcomes

On completion of this unit students will be able to:

- explain key concepts in the determination of a criminal case
- discuss the principles of justice in relation to the determination of criminal cases, sanctions and sentencing approaches
- explain key concepts in the resolution of a civil dispute
- discuss the principles of justice in relation to the resolution of civil disputes and remedies
- evaluate the ways in which rights are protected in Australia
- compare this approach with that adopted by another country and
- discuss the impact of an Australian case on the rights of individuals and the legal system.

LEGAL STUDIES

Units 3+4

Course Description

Legal Studies Unit 3 & 4 focuses on human rights in the justice system and various processes and system that are used to protect these. Students also examine various aspects of the Australian Parliamentary system.

Unit 3: Rights and justice

This unit focuses on:

- examine the methods and institutions in the justice system and consider their appropriateness in determining criminal cases and resolving civil disputes.
- rights available to an accused and to victims in the criminal justice system, the roles of the judge, jury, legal practitioners and the parties, and the ability of sanctions and remedies to achieve their purposes.
- the extent to which the principles of justice are upheld in the justice system.

Outcomes
On completion of this unit students will be able to:

- explain the rights of the accused and of victims in the criminal justice system
- discuss the means used to determine criminal cases
- evaluate the ability of the criminal justice system to achieve the principles of justice
- analyze the factors to consider when initiating a civil claim
- discuss the institutions and methods used to resolve civil disputes and
- evaluate the ability of the civil justice system to achieve the principles of justice.

Unit 4: The people and the law

This unit focuses on:

- how the Australian Constitution establishes the law-making powers of the Commonwealth and state parliaments, and protects the Australian people.
- the significance of the High Court in protecting and interpreting the Australian Constitution.
- parliament and the courts, and the relationship between the two in law-making
- the roles of the individual, the media and law reform bodies in influencing law reform

Outcomes
On completion of this unit students will be able to:

- discuss the significance of High Court cases involving the interpretation of the Constitution
- evaluate the ways in which the Constitution acts as a check on parliament in law-making
- discuss the factors that affect the ability of parliament and courts to make law
- evaluate the ability of these law-makers to respond to the need for law reform

analyze how individuals, the media and law reform bodies can influence a change in the law.

MATHEMATICAL METHODS (CAS)

Unit 1 & 2

Course Description

This course is for students who require a high level understanding of abstract Mathematics.
Entry to this course requires students to have successfully completed Year 10 Mathematics with high scores in Algebra.
This course may be taken by itself or in conjunction with General Mathematics.

This subject focuses on:

- Developing an ability to solve problems algebraically.
- Developing an ability to work and communicate mathematically.
- Developing an ability to problem solve.

Outcomes

On completion of this unit:

- Students should be able to define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures.
- Students should be able to apply mathematical processes in non-routine contexts, including situations requiring problem-solving, modelling or investigative techniques or approaches, and analyse and discuss these applications of mathematics.
- Students should be able to select and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling or investigative techniques or approaches.

Unit 1

This unit focuses on:

- Functions and graphs
- Algebra
- Calculus
- Probability and statistics

Unit 2

This unit focuses on the same topics as Unit 1 but to a greater degree of understanding.

MATHEMATICAL METHODS (CAS)

Unit 3 & 4

Course Description

Entry to this course requires students to have successfully completed Mathematical Methods Unit 1 & 2.
This course may be taken by itself or in conjunction with Further Mathematics.

This subject focuses on:

- Developing an ability to solve problems algebraically.
- Developing an ability to work and communicate mathematically.
- Developing an ability to problem solve.

Outcomes

On completion of this unit:

- Students should be able to define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures.
- Students should be able to apply mathematical processes in non-routine contexts, including situations requiring problem-solving, modelling or investigative techniques or approaches, and analyse and discuss these applications of mathematics.
- Students should be able to select and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling or investigative techniques or approaches.

Unit 3

This unit focuses on:

- Functions and graphs
- Algebra
- Calculus

Unit 4

This unit focuses on the same topics as Unit 3 but to a greater degree of understanding.

- Functions and graphs
- Algebra
- Calculus
- Probability and statistics

MEDIA

Units 1+2

Course Description

VCE Media provides students with the opportunity to analyse media texts and concepts in an informed and critical way. Students explore the structure, content and techniques used in media texts and integrate this knowledge into practical work, producing a range of creative media products and representations for an intended purpose and audience.

Unit 1 – Media forms, representations and Australian stories

This unit focuses on:

- The analysis of media representations in a range of media forms and texts;
- Practical skills and creative techniques in the use of media equipment and applications to create media products for specific audiences; and,
- The analysis of Australian fiction and non-fiction narratives and how they are structured to engage audiences.

Outcomes

In this unit students will:

- Use media terminology to analyze and explain how media representations are constructed to communicate ideas;
- Learn how to use a range of media equipment and applications to create media representations;
- Follow media processes to produce and compare a range of media products; and,
- Explore a range of Australian media narratives.

Unit 2 – Narrative across media forms

This unit focuses on:

- Analyzing the intentions of media creators and producers and the influence of narratives on audiences
- Understanding media production processes and the roles and responsibilities required in different stages of the production process;
- The creation of a collaborative media product;
- Developing practical skills and creative techniques in a range of media forms; and
- Exploring the influence of new media technologies on individuals, audiences and society

Outcomes

In this unit students will:

- Analyse the distinctive style of media creators and producers in different media forms;
- Undertake roles within the production process to create, develop and construct narratives;
- Explore the influence of new media technologies on individuals, audiences and society

MEDIA

Units 3+4

Course Description

VCE Media provides students with the opportunity to analyse media products and concepts in an informed and critical way. Students integrate this knowledge into practical work, producing a range of media products and representations.

Unit 3 – Media narratives and pre-production

This unit focuses on:

- The relationship between the media and its audience;
- Examining fictional and non-fictional narratives in a range of media forms
- The function of media codes and conventions and how they convey meaning;
- Exploring media equipment, technologies and processes appropriate to a selected media form and proposed product;
- Developing and documenting a media production design in a selected media form for a specified audience.

Outcomes

In this unit students will:

- Analyse how narratives are constructed and how they are read by intended audiences
- Experiment with media technologies and production processes to inform the design of a media production
- Document a media production design plan for a media product to be made in Unit 4

Unit 4 – Media production and issues in the media

This unit focuses on:

- Making the product the student designed in Unit 3;
- Refining and applying organisational and creative skills in this process
- Critically analyzing the issues and challenges relating to regulation and control of the media and the relationship between the media and its audience

Outcomes

In this unit students will:

- Produce a media product from the media production design plan prepared by the student in Unit 3;
- Discuss issues of agency and control in the relationship between the media and its audience

PHYSICAL EDUCATION

Units 1+2

Course Description

This unit focuses on:

- The interrelationships between anatomical, biomechanical, physiological and skill acquisition principles and their role in producing and refining movement
- Examining behavioural, psychological, environmental and sociocultural influences on performance and participation in physical activity
- Practical activities examining the core concepts that underpin movement and that influence performance and participation in physical activity, sport and exercise

Unit 1 – The human body in motion
In this unit students explore how the musculoskeletal and cardiorespiratory systems work together to produce movement and how they adapt to the demands of physical activity. Students evaluate the social, cultural and environmental influences on movement, while considering the implications of the use of legal and illegal practices to improve athlete's performance. Students also recommend and implement strategies to minimise the risk of illness or injury to each system.

Outcomes
In this unit you will:

- Collect and analyse information from, and participate in, a variety of practical activities to explain how the musculoskeletal, cardiovascular and respiratory systems function together
- Explore legal and illegal practices and substances that improve athletic performance

Unit 2 – Physical activity, sport and society
In this unit students' are introduced to types of physical activity and the role participation in physical activity and sedentary behaviour plays in their own health and wellbeing as well as in other people's lives in different population groups. Students investigate how participation in physical activity varies across the lifespan. Students investigate individual and population-based consequences of physical inactivity and sedentary behaviour and create and participate in, an activity plan that meets the physical activity and sedentary behaviour guidelines relevant to the particular population group being studied.

Outcomes
In this unit you will:

- Collect and analyse data related to individual and population levels of participation in physical activity and sedentary behaviour to create, undertake and evaluate an activity plan.
- Apply a social-ecological framework to research, analyse and evaluate a contemporary issue associated with participation in physical activity

PHYSICAL EDUCATION

Units 3+4

Course Description

This unit focuses on:

- developing an understanding of the anatomical, biomechanical, physiological and skill acquisition principles, and of behavioural, psychological, environmental and sociocultural influences on performance and participation in physical activity across the lifespan
- applying relevant training principles and methods to improve performance within physical activity at an individual, club and elite level.

Unit 3 – Movement skills and energy for physical activity
This unit introduces students to the biomechanical and skill acquisition principles used to analyse human movement skills and energy production from a physiological perspective. Students investigate the relative contribution and interplay of the three energy systems to performance in physical activity, sport and exercise. In particular, they investigate the characteristics of each system and the interplay of
the systems during physical activity. Students explore the causes of fatigue and consider different strategies used to postpone fatigue and promote recovery.

Outcomes
Students will be able to:

- Complete structured questions that draw on primary data to analyse a movement skill using biomechanical and skill acquisition principles
- Complete a laboratory report and series of structured questions on energy system interplay, acute responses to exercise, fatigue and/or recovery

Unit 4 – Training to improve performance
In this unit students analyse movement skills from a physiological, psychological and sociocultural perspective, and apply relevant training principles and methods to improve performance. Students analyse skill frequencies, movement patterns, heart rates and work to rest ratios to determine the requirements of an activity. Students participate in a variety of training sessions designed to improve or maintain fitness and evaluate the effectiveness of different training methods.

Outcomes
Students will be able to:

- Complete a written report analyzing data from an activity analysis
- Complete a reflective folio, written report and series of structured questions based on the design and evaluation of training programs to enhance specific fitness components.

PHYSICS

Units 1+2

Course Description

This subject focuses on:

- Understanding and explaining the physical world
- Examining models and ideas used to make sense of the world
- Looking at the way matter and energy interact through observations, measurements and experiments

Unit 1: What ideas explain the physical world?
This unit covers the area of how physics explains phenomena, at various scales, which are not always visible to the unaided human eye. The areas of study are: How can thermal effects be explained?, How do electric circuits work?, What is matter and how is it formed?

Outcomes:
In this unit you will:

- Apply thermodynamic principles to analyse, interpret and explain changes in thermal energy
- Investigate and apply a basic DC circuit model to simple battery-operated devices and household electrical systems, apply mathematical models to analyse circuits, and describe the safe and effective use of electricity by individuals and the community
- Explain the origins of atoms, the nature of subatomic particles and how energy can be produced by atoms.

Unit 2: What do experiments reveal about the physical world?
This unit covers the area of how physics explores the power of experiments in developing models and theories.

Outcomes:
In this unit you will:

- Investigate, analyse and mathematically model the motion of particles and bodies.
- Apply physics concepts to one of twelve options based on a different observation of the physical world
- Design and conduct a practical investigation related to knowledge and skills developed in Area of Study 1 and/or Area of Study 2

PHYSICS

Units 3+4

Course Description

This subject focuses on:

- Gravitational, electric and magnetic fields
- The production, distribution and use of electricity
- Motion
- Wave theory
- How light and matter are similar

Unit 3: How do fields explain motion and electricity?
In this unit students explore the importance of energy in explaining and describing the physical world.

Outcomes:
In this unit you will:

- Analyse gravitational, electric and magnetic fields, and use these to explain the operation of motors and particle accelerators and the orbits of satellites
- Use empirical evidence and models of electric, magnetic and electromagnetic effects to explain how electricity is produced and delivered to homes
- Investigate motion and related energy transformations experimentally, analyse motion using Newton's laws of motion in one and two dimensions, and explain the motion of objects moving at very large speeds using Einstein's theory of special relativity

Unit 4: How can two contradictory models explain both light and matter?
In this unit, students explore the use of wave and particle theories to model the properties of light and matter.

Outcomes:
In this unit you will:

- Apply wave concepts to analyse, interpret and explain the behaviour of light
- Explore the design of major experiments that have led to the development of theories to describe the most fundamental aspects of the physical world – light and matter
- Design a practical investigation related to waves, fields or motion

PSYCHOLOGY

Units 1+2

Course Description

This subject focuses on:

- Understanding the contributions that the study of psychology has made to our lives.
- Understanding, evaluating and comparing different psychological concepts and theories.
- Skills in creating and carrying out psychological experiments and research on humans.
- Understanding and applying ethical principles when conducting research.

Unit 1

This unit focuses on:

- The structure and function of the brain and nervous systems.
- The impact of trauma on cognitive function.
- The use of neuroimaging techniques.
- The impact of genetics and environment on psychological development.
- Atypical development and its effects on the individual.

Outcomes

In this subject you will:

- Describe how our understanding of brain function has changed over time.
- Explain the interaction between the brain and nervous systems and psychological functioning.
- Discuss the factors that may lead to typical or atypical psychological development.
- Student-directed major research investigation and report.

Unit 2

This unit focuses on:

- Sensation and perception of sensory stimuli.
- The influence of different factors on perception.
- The relationship between prejudice, attitudes and discrimination.
- Social influences on individual behaviour.
- Factors such as bullying and media on individual behaviour.

Outcomes

In this subject you will:

- Compare and discuss sensations and perceptions of vision and taste.
- Analyse possible distortions of such sensations such as vision and taste.
- Identify factors that influence individuals to behave in certain ways.
- Student-directed major practical investigation and report.

PSYCHOLOGY

Units 3+4

Course Description

This subject focuses on:

- The development of major ideas in psychology relating to individual human behaviour.
- Understanding the contributions that the study of psychology has made to our lives.
- Understanding, evaluating and comparing different contemporary psychological concepts and theories.
- Skills in creating and carrying out psychological experiments relating to mental processes and psychological functioning.
- Understanding and applying ethical principles when conducting research.

Unit 3

This unit focuses on:

- The structure and function of the human nervous system.
- The positive and negative effects of stress.
- The role of coping mechanisms in relation to stress.
- The neural basis of learning and memory.
- Comparisons of models explaining learning and memory.
- The reliability and decline of memory over the lifespan.

Outcomes

In this subject you will:

- Use scientific language when responding or presenting.
- Present findings on the structure and function of the nervous system in relation to human behaviour.
- Compare and evaluate different coping mechanisms for stress.
- Conduct and report on research relating to learning and memory.
- Examine biological, psychological and social factors relating to memory decline.

Unit 4

This unit focuses on:

- The psychological construct of consciousness and levels of awareness.
- The importance of sleep and effects of sleep deprivation.
- Defining mental health and mental disorders.
- Investigating factors that contribute to the development and maintenance of mental disorders.
- Application of the Biopsychosocial model to explain phobias.

Outcomes

In this subject you will:

- Use scientific language when responding or presenting.
- Conduct an analysis of data relating to sleep and consciousness.
- Respond to a set of structured questions.
- Produce a folio of practical activities relating to consciousness and sleep.
- Design and undertake scientific research and present findings in a structured poster.

SPECIALIST MATHEMATICS (VVLN)

Units 3+4

Course Description

Entry to this course requires students to have completed Mathematical Methods Unit 1 & 2 to a high standard. This course should be taken in conjunction with Mathematical Methods. There will be some prior learning needed before students can undertake this subject. This subject is run through the Victorian Virtual Learning Network. Students undertaking this subject should have high-level skills of organization and self-regulation.
This subject focuses on:

- Developing an ability to solve problems algebraically and abstractly;
- Developing an ability to work and communicate mathematically;
- Developing an ability to problem solve.

Outcomes

On completion of this unit:

- Students should be able to define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures.
- Students should be able to apply mathematical processes in non-routine contexts, including situations requiring problem-solving, modelling or investigative techniques or approaches, and analyse and discuss these applications of mathematics.
- Students should be able to select and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling or investigative techniques or approaches.

Unit 3

This unit focuses on:

- Functions and graphs
- Algebra
- Calculus
- Vectors
- Mechanics
- Probability and statistics

Unit 4

This unit focuses on the same topics as Unit 3 but to a greater degree of understanding.

STUDIO ARTS

Units 1+2

Course Description

This subject focuses on:

- Experimentation with 2D/3D materials and techniques related to specific art forms.
- The investigation and exploration of a design process including exploring sources of inspiration and developing individual ideas.
- The production and evaluation of your own artwork.
- The study and investigation of artists from different times and cultures.

Unit 1 – Studio Inspiration and Techniques

This unit focuses on:

- The investigation of a variety of sources of inspiration - from specific artists to images in the media.
- The exploration of a range of art materials and techniques.
- The work of specific artists from different times and locations.

Outcomes

In this subject you will:

- Identify sources of inspiration and artistic influences, outline individual ideas and use a variety of methods to translate these into a visual language.
- Progressively record the development of studio practice and convey individual ideas through the exploration of materials and techniques in selected art forms to produce finished artworks.
- Discuss the artistic practice of artists from different times and cultures, their sources of inspiration and use of materials and techniques

Unit 2 – Studio Exploration and Concepts

This unit focuses on:

- Establishing and using studio practice to produce artworks
- Exploration and development of ideas and subject matter and creation of aesthetic qualities
- The study of art movements and styles and development of skills in visual analysis of artworks
- The exhibition of artworks including different environments and how artworks are presented to an audience

Outcomes

In this subject you will:

- Develop an individual exploration proposal and document a variety of potential directions in a visual diary
- Compare a range of historical and contemporary art periods, styles or movements and analyse the way artists communicate ideas, develop styles and demonstrate aesthetic qualities in artworks

STUDIO ARTS

Units 3+4

Course Description

This subject focuses on:

- The study and investigation of artists and artworks from different times and cultures, including their working methods, communication of ideas and development of aesthetic qualities.
- The development of specialised skills in specific art forms.
- Exploration of a range of materials and techniques in art practice
- The production and evaluation of students own artwork.

Unit 3 – Studio Practices and Processes

This unit focuses on:

- The development and use of an exploration proposal to define an area of creative exploration.
- Collating inspiration from a variety of sources including relevant artists.
- Trialing a variety of materials and techniques.
- Refining and developing a selection of 'Potential Directions'
- The study and investigation of artists and their work practices and processes

Outcomes

The student should be able to:

- Prepare an exploration proposal the individual studio process including a plan of how the proposal will be undertaken.
- Present an individual studio process recorded both visually and in written form that produces a range of potential directions.
- Examine the practice of artists referencing their different historical and cultural contexts.

Unit 4 – Studio Practice and Art Industry Contexts

This unit focuses on:

- The production of a folio of artworks that link cohesively according to the ideas resolved in Unit 3.
- Refinement and skillful application of materials and techniques and aesthetic qualities.
- Artists' involvement in the art industry focusing on at least 2 different exhibitions visited during the year and considerations relating to the presentation and conservation of artworks

Outcomes

In this subject you will

- Present at least 2 finished artworks based on selected potential directions developed through the studio process
- Provide visual and written documentation that identifies and evaluates the extent to which the artworks reflect the selected potential directions
- Compare the methods used by artists and considerations of curators in the preparation, presentation, conservation and promotion of specific artworks in at least two different exhibitions

VISUAL COMMUNICATION AND DESIGN

Units 1+2

Course Description

This study focuses on communicating messages, ideas and concepts through visual design. Students develop skills in both freehand and technical drawing as a means of communicating ideas. They apply design thinking skills throughout the design process to develop designs appropriate for different purposes and audiences. Students explore the application of design elements, design principles and a range of materials and techniques through the production of both three dimensional and graphic designs. They are introduced to the importance of copyright and intellectual property. Students consider the way design has changed through time, exploring cultural and historical influences in visual communication.

Unit 1 – Introduction to Visual Communication Design
This unit focuses on:

- Observational, visualization and presentation drawing skills.
- Technical drawing skills.
- Rendering techniques using a range of media and methods
- The application of design elements and design principles
- The development of visual communications for specific purposes
- Cultural and historical influences in visual communication

Outcomes
In this unit you will:

- Complete a drawing folio focusing on technical and freehand drawing and rendering
- Apply design elements and principles to create visual communications for a purpose
- Analyse historical and contemporary examples of visual communications

Unit 2 – Applications of Visual Communication Within Design Fields
This unit focuses on:

- The fields of environmental, industrial and product design
- Technical drawing techniques
- The role of type and images in communication design
- The application of the visual communication design process
- The development of visual communications to meet set briefs

Outcomes
In this unit you will:

- Complete a drawing folio of technical drawings
- Apply type and imagery to create a range of visual communications
- Follow the design process to develop visual communications appropriate to a set brief

VISUAL COMMUNICATION AND DESIGN

Units 3+4

Course Description

This study explores the process designers use to communicate with clients, target audiences and other designers, and to produce effective visual communications. Students analyse existing visual communications and study the practices of professional designers, to explore designs in the communication, industrial and environmental design fields. Students use this understanding to apply the design process and develop their own visual communications appropriate to a set brief.

Unit 3 – Visual Communication Design Practices
This unit focuses on:

- The communication, environmental and industrial design fields
- Analysis of existing visual communications
- The design process followed by professional practitioners in the design industry
- The visual communication design process
- Development of briefs
- Research methods and sources
- Design thinking skills
- Freehand drawing, rendering and design skills

Outcomes
In this unit you will:

- Analyse visual communications in the communication, environmental and industrial design fields
- Discuss the design process followed by professional practitioners in the design industry
- Develop a folio that applies design thinking to conduct research and generate ideas relevant to a brief.

Unit 4 – Visual Communication Design Development, Evaluation and Presentation
This unit focuses on:

- The application of the visual communication design process
- Application of manual and freehand image generation methods
- The development and refinement of design ideas
- Development of final presentations that meet a set brief
- Evaluation and explanation of design work

Outcomes
In this unit you will:

- Develop, refine and evaluate ideas generated in the Unit 3 folio
- Resolve final presentations that meet the requirements of the brief

PRACTICE SELECTIONS

COMMON UNIT	ADDITIONAL UNITS				
ENGLISH UNIT 1					
ENGLISH UNIT 2					
ENGLISH UNIT 3					
ENGLISH UNIT 4					

COMMON UNIT	ADDITIONAL UNITS				
ENGLISH UNIT 1					
ENGLISH UNIT 2					
ENGLISH UNIT 3					
ENGLISH UNIT 4					

PRACTICE SELECTIONS

COMMON UNIT	ADDITIONAL UNITS				
ENGLISH UNIT 1					
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ENGLISH UNIT 4					

COMMON UNIT	ADDITIONAL UNITS				
ENGLISH UNIT 1					
ENGLISH UNIT 2					
ENGLISH UNIT 3					
ENGLISH UNIT 4					

MULTIPLY YOUR OPPORTUNITES

Vocational Education and Training (VET) Certificate Courses

VET courses at Mullauna College aim to help you develop competencies and skills to obtain a credential that is recognised throughout Australia. This can be achieved through school and TAFE.

Many of the competencies can be transferred to workplaces, schools, TAFE and industries, so that you are not locking yourself into one industry: you could transfer the competencies into another vocation or area of learning.

VET courses at Mullauna College are part of your VCE. The VCE/VET courses offered at Mullauna College may give direct scores or bonus increments to your Australian Tertiary Admission Rank (ATAR) and thus improve your chances to gain entry into university or TAFE.

Entry into a VET course at Mullauna College is ***not automatic.*** You may have to attend an interview, and if successful, applicants are required to participate in an Orientation Program. Consider your options and find out which VCE/VET studies best equip you for your future career. For more information see the VCE/VET Co-ordinator or Careers Teacher.

Fees and Costs:

There will be an Enrolment Fee and Materials Fee which varies between courses; there may also be a TAFE Service Fee which will depend on student hours and materials/ equipment costs.

Note: When students are in attendance at a VET program they will be recorded as attending VET by classroom teachers and will not affect their attendance record at the College.

Australian Qualifications and Training Framework:

The qualification gained is a certificate at level II or III within the Australian Qualification Framework (AQTF). It is possible to progress through part of this nationally recognised qualification system while you are still at Mullauna College and obtain your VCE at the same time.

Note: Students undertaking a VET course are required to attain the full sequence - Unit 1-4

VET subjects 2019

The clusters 2019 program is yet to be released, however it is anticipated that the subjects available on the Mullum Cluster website will be available for students to undertake. While looking at the programs available, please keep in mind that travel time must also be included and some programs have high costs involved.

VET enrolment

Applications for VET programs must be indicated on your VCE subject selection form. You cannot enroll directly through the Mullum Cluster. Mullauna College students will only be accepted into VET if they can demonstrate an ability to safely travel to and from other locations, handle missing some of their class time and demonstrate a benefit to their pathway.