Carwatha College P-12

Learning Together

V3 SUBJECT BOOKLET

THIS BOOKLET PROVIDES STUDENTS AND PARENTS WITH IMPORTANT INFORMATION ABOUT V3 SUBJECT SELECTION

SUBJECT SELECTION

The following guide outlines the areas of study (the topics) for each unit offered at year 10, 11 and 12. This guide is designed to give students and parents/carers an overview of each subject in an effort to help students select the right subjects.

Students are encouraged to speak to relevant teachers, their Learning House Leaders and the careers staff to seek further information or clarification about prerequisites. If students are considering a university pathway, some of these courses require students to complete a particular subject and for this reason, discussions with careers are encouraged.

REQUIREMENTS

Year 10

Year 10 (V1) students select two Unit 1/2 subjects and to complement their core subjects (English, Mathematics, Humanities, Science and Sport).

Year 11

Year 11 (V2) students select a combination of Unit 1/2 and Unit 3/4 subjects. One subject MUST be an English/English as an Additional Language). A student's course may include a subject taken externally. For example, a student may study Unit 3/4 Bosnian at an external language school as part of their course. Any course selections external to the school's timetable must be communicated to, and approved by, the Head of Senior School.

Year 12

Year 12 (V3) students will complete four Unit 3/4 subjects. One subject MUST be an English unit (Units 3 & 4 English or English as an Additional Language). This may include a subject undertaken externally; this must be communicated to, and approved by, the Head of Senior School.

WHAT TO DO BEFORE THE COURSE COUNSELLING APPOINTMENT

- Read the Senior School Guide.
- Discuss pathway options/preferences with parents/carers, including VCE or VCE Vocational Major (VM) pathways.
- Think about the VCE subjects you are interested in studying in following years and plan these across V3.
- Read this booklet carefully and watch the subject description videos to find out more about each subject.
- Complete the Subject Selection form.

COURSE COUNSELLING APPOINTMENT

Students entering Year 10

Course Counselling appointments will be scheduled for Tuesday the 5th of August and parents/carers are involved in this process. More information will be communicated about booking a time.

Students entering Year 11 and 12

These appointments will be made for Week 3, Term 3. Once students have met and discussed their subjects with their course counsellor they will take a completed form home, for parent/carer information. Subject choices will only be confirmed later in the term.

WHO TO CONTACT

Please contact any of the following people if you have any questions or queries.

- Sub-School Leaders – Mr Hammond (SNR) & Mr Roberts (JNR)
- VCAL/VETis Co-ordinator – Careers Team and Mr Hammond
- Learning House Leaders
- The teachers of subjects in which you are interested

FREQUENTLY ASKED QUESTIONS (FAQs)

Q) Should I pick a subject I don't like, but think I need for the future?
A) No, pick subjects you like and enjoy. Speak to the careers team if you think you may need it for a course and you can then discuss your options with them.

Q) If I pick a subject in Year 10, do I have to complete all four units of that subject's sequence?
A) No, you can change subjects midway through a sequence. V3 allows you to see if you like something in Year 10. If it doesn't work for you, you can always look to change at the end of a Semester or at the end of the year.

Q) Do I have to do Units 1&2 of a subject to do Units 3&4?
A) No, but it is recommended for many subjects. If you are unsure ask your course counsellor or speak to the teacher currently teaching that subject.

Q) Why have I been recommended for a different Maths subject to my friend?
A) Students will be recommended a VCE Maths subjects that suits their level,

CHARGES

Some of the subjects offered in our V3 program incur a charge. Please make sure you consider the charges associated with certain subjects before finalising your choices.

YOUTUBE

As you will notice most subjects have created a video that will help explain the subject in more detail, There is a link attached to all subjects but you can all find all video in the one place here:

https://www.youtube.com/channel/UCg0SOfGFm2ldLvm6TiyVEFA/videos?reload=9

ENGLISH

As all students undertake English there is no subject page below for English and EAL but the teachers in charge of the subject have put together a video for your information.

English: https://youtu.be/rWxlfuNzTEA
EAL: https://youtu.be/UwRmvDi_3e4

SUBJECT

ACCOUNTING

What is Accounting?

Accounting explores the financial recording, reporting, analysis and decision-making processes of a sole proprietor small business. Students apply critical thinking skills to a range of business situations to model alternative outcomes and to provide accounting advice to business owners.

Why study Accounting?

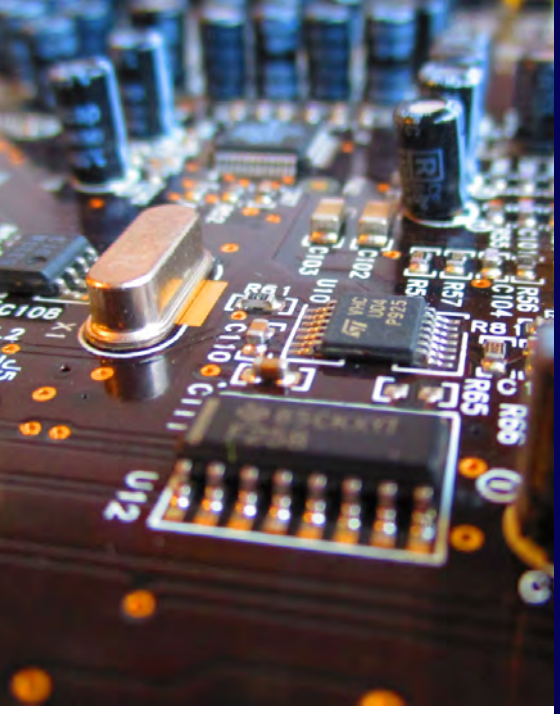
Studying accounting will support the development of financial skills which are transferable and can be utilised for both business and personal use in decision making.

Furthermore, accounting knowledge will support the interpretation of your own financial information to support you in the future.

Careers in Accounting

- Accounts clerk
- Business accountant
- Financial analyst
- Auditor
- Actuary
- Bookkeeper
- Chief Financial Officer (CFO)
- Financial planner
- Forensic accountant
- Management accountant
- Taxation

Accounting video:
https://www.youtube.com/watch?v=ABjCVTBnO_U



SUBJECT

APPLIED COMPUTING

What is Applied Computing?

Applied Computing focuses on the strategies and techniques for creating digital solutions to meet specific needs and to manage the threats to data, information and software security. The study examines the attributes of each component of an information system including people, processes, data and digital systems (hardware, software, networks), and how their interrelationships affect the types and quality of digital solutions.

Why study Applied Computing?

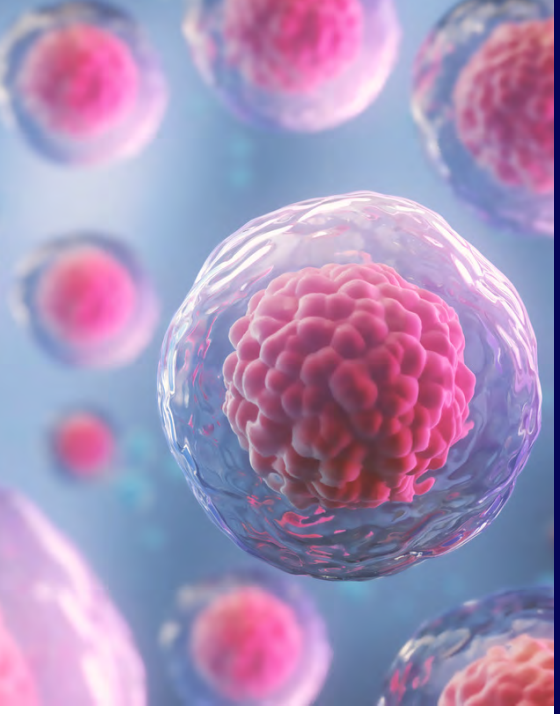
Technology continues to evolve rapidly, providing opportunities for enterprising individuals to create new technologies and innovative uses for existing technologies. This study equips students with the knowledge and skills required to adapt to a dynamic technological landscape, including the ability to identify emerging technologies, envisage new uses for digital technologies and consider the benefits that these technologies can bring to society at a local and at a global level.

Applied Computing facilitates student-centered learning that enables students to build capabilities in critical and creative thinking, and to develop communication and collaboration, and personal, social and information and communications technology (ICT) skills. Students are provided with practical opportunities and choices to create digital solutions for real-world problems in a range of settings.

Careers in Applied Computing

- Business analysis
- Computer science
- Cybersecurity
- Data analytics and data science
- Data management
- Game development and robotics
- ICT
- Networks

Applied Computing video:
https://youtu.be/NFgV9iXKMw0



SUBJECT

BIOLOGY

What is Biology?

Biology is the study of living organisms, life processes and the different levels of organisation from the cell to the biosphere. It includes the study of interactions within and between species and considers the unity and continuity of life, diversity and change.

Why study Biology?

Biology helps us better understand the world around us, from a micro to macro level, and how it has changed over time. It is a science subject that involves both theory and practical components, so there are many experiments using equipment to allow students to learn in a hands-on way.
If you have a personal interest in plants, animals, health or the environment you will enjoy this subject. Biology knowledge and critical thinking skills are used in everyday life, especially when we're presented with things like fake news, fad diets, or fast-changing scientific discoveries. Having a good understanding of biological processes opens up opportunities to work in a variety of industries.

Careers in Biology

-Agricultural science
-Botany and zoology
-Conservation and landscape management
-Ecology and forestry
-Genetics
-Immunology
-Medical science
-Medicine
-Microbiology
-Nursing
-Optometry
-Physiotherapy

Biology video:
https://youtu.be/VyYgtZtHovU

SUBJECT

BUSINESS MANAGEMENT

What is Business Management?

The ability to apply business concepts, principles and terminology. Analyse effective management practices for commercial success and apply legal requirements to business situations.

Why study Business Management?

To prepare yourself to participate effectively in your own business or a workplace in a managerial role.
To give you a head start undertaking Business and Commerce courses at university.
To understand what makes a business successful.
To be enterprising and to develop your ability to be innovative.

Careers in Business Management

- Human resources
- Administrative assistant
- Office manager
- Client services
- Sales representative
- Marketing manager
- Logistics manager

Business Management video:
https://youtu.be/DfRF7bOIFzk

SUBJECT

CERTIFICATE III SPORT AND RECREATION (FOOTBALL PROGRAM)

What is the VET Certificate III Sport and Recreation (Football Program)?

Certificate III Sport and Recreation football program offers a pathway to higher education in the sporting industry and football experiences. The subject introduces student athletes who love sport, particularly football, to learning about the sport and recreation industry. The program includes theory and practical training sessions that feature the latest training methods, including skill acquisition, conditioning, mental preparation, game intelligence and football awareness. The program also offers football excursions, friendly games and opportunities to learn from world class sporting guests about the sporting industry.

Why study VET Certificate III Sport and Recreation (Football Program)?

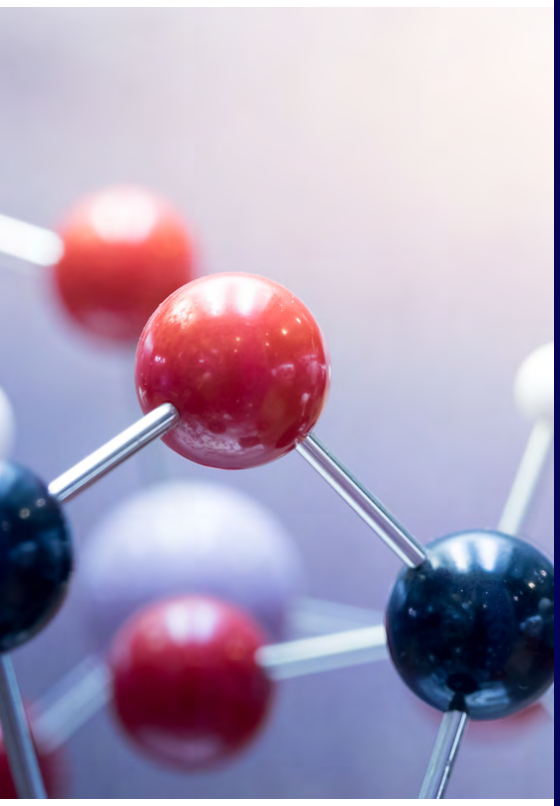
If you want a career in the sporting industry and love sport this is the perfect course for you. Throughout this football tailored subject you will learn how to work effectively in professional sport, fitness and recreation environments, plan and conduct programs, organise schedules and how to use social media tools for collaboration and engagement in the sporting industry. You will gain skills in how to work hands-on in the sport and recreation industry, you will also learn how to maintain sport, fitness and recreation facilities and conduct non-instructional sport, fitness or recreational sessions.

Careers in Sport and Recreation

- Recreation sports officer
- Sport and fitness personal trainer
- Sports media, journalism and marketing
- Sport development and coaching
- Sports club administration
- Assisting in sports marketing

Football Program information:

https://www.carwatha.vic.edu.au/source/CFC%20BOOKLET%20(Revised_12-05-2021).pdf



SUBJECT

CHEMISTRY

What is Chemistry?

Chemistry is everywhere in the world around you! It's in the food you eat, clothes you wear, water you drink, medicines, air, cleaners... you name it. Chemistry is sometimes called the "central science" because it connects other sciences to each other, such as biology, physics, geology and environmental science.

Why study Chemistry?

Understand the world around you.
Read and understand product labels.
Know which household chemicals are dangerous to keep together or mix and which can be used safely.
Learning chemistry means learning how to be objective and how to reason and solve problems.
Understand current events, including news about petroleum, product recalls, pollution, the environment and technological advances.
Chemistry explains how things work.
Chemistry is fun! Chemistry projects don't just go boom. They can glow in the dark, change colours and produces bubbles.

Careers in Chemistry

- Dietician
- Food technologist
- Pharmacist
- Analytical chemist
- Clinical biochemist
· Forensic scientist
· Research scientist (physical sciences)
· Chemical development engineer
· Science writer
· Toxicologist
· Process engineer

Chemistry video:
https://youtu.be/WxTa99xjTvA

SUBJECT

FOOD STUDIES

What is Food Studies

Food Studies is an interdisciplinary subject that explores food with an emphasis on extending food knowledge and skills, and building individual pathways to health and wellbeing. Students explore food from a wide range of perspectives including past and present patterns of eating, Australian and global food production systems and the many physical and social functions and roles of food. Students research economic, environmental, and ethical dimensions of food and critically evaluate information, marketing messages and new trends.

Why study Food Studies?

Food Studies allows students to make informed and confident decisions about food selection and food preparation in their own lives. In Food Studies students will learn to:

- Develop as informed and capable food citizens
- Build practical food skills in the planning, preparation, evaluation and enjoyment of food.
- Apply principles of nutrition and food science to food planning and preparation.
- Develop understanding of food origins, cultures, customs and behaviours.
- Develop awareness of a diverse range of influences on food choices available.
- Research and discuss issues relating to economic, environmental and ethical dimensions of our food system.
- Analyse food information, food advertising and current food trends with a critical lens.

Careers in Food Studies

- Health sciences
- Food science
- Food & nutrition
- Nursing
- Teaching
- Hospitality and culinary studies
- Food technician in industry
- Primary food industries

Food Studies video:
https://youtu.be/cFkFeVI-uVc

SUBJECT

HEALTH AND HUMAN DEVELOPMENT

What is Health and Human Development?

Health and Human Development presents concepts of health, wellbeing and human development from a range of perspectives: individual and collective; local, national and global; and across time and the lifespan.

Why study Health and Human Development?

Health and Human Development provides students with broad understandings of health and wellbeing that reach far beyond the individual. In Health and Human Development, students will learn to:

- Respond to health information, advertising and other media messages.
- Develop understanding of the importance of health and wellbeing to self, families, communities, nations and global society.
- Explore the complex interplay of biological, sociocultural and environmental factors.
- View health and wellbeing as holistic across the lifespan and around the world, through a social equity and justice lens.
- Navigate information to recognise and enact supportive behaviours, and to evaluate healthcare initiatives and interventions.

Careers in Health and Human Development

- Medicine and nursing
- Nutrition
- Dentist
- Health officer
- Health promotion officer
- Councillor
- Social work
- Paramedic
- Fitness instructor
- Physiotherapist

Health and Human Development video:
https://youtu.be/bxiJJdhrm80

SUBJECT

HISTORY

What is History?

'The more you know about the past, the better prepared you are for the future.'

History is the study of change over time. It is about understanding the past so, as a society, we can make better decisions for the future.

We study the people and events that changed our world in the 20th Century. Topics include the rise of Communism and Nazism, The Cold War, Vietnam War and USA Civil Rights.

Why Study History?

History helps us develop a better understanding of the world. History develops important life skills in critical thinking, creativity, written communication and research.

Careers in History

- Archaeologist
- Art historian
- Archivist
- Research officer
- Cultural heritage officer
- Teacher
- Museum or art gallery director

History video:
https://youtu.be/FC5zJHCRz4o

SUBJECT

LEGAL STUDIES

What is Legal Studies?

Gaining an understanding of the processes and procedures involved in law making and discovering how the legal system operates. This can then help you understand the factors that affect legal outcomes. You will also gain a better understanding of local, national and international issues as well as knowing your rights in relation to the law.

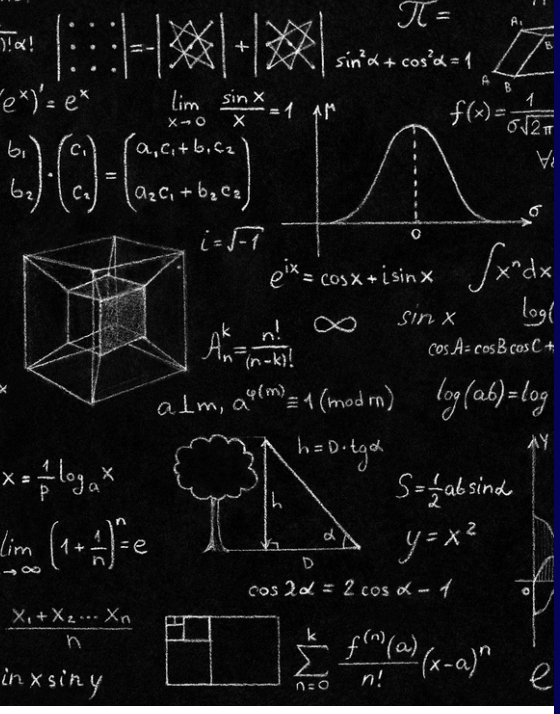
Why study Legal Studies?

In Legal Studies, students will develop an ability to:
- Define legal concepts and use them appropriately.
- Compare theory with current legal practices.
- Interpret and analyse legal information and data.
- Evaluate the strengths and weaknesses of legal processes and procedures.
- Research and understand criminal and civil cases.

Careers in Legal Studies

- Law
- Solicitor
- Barrister
- Policing
- Social work
- Industrial relations
- Occupational health and safety
- Paralegal work

Legal video:
https://youtu.be/x7pILMV7kbQ



SUBJECT

GENERAL MATHEMATICS

What is General Maths?

General Mathematics is the study of statistics, linear relationships, networks, matrices and financial relationships. In these subjects, there is a focus on developing skills in problem solving, critical thinking, analysing options and making decisions.

Why study General Maths?

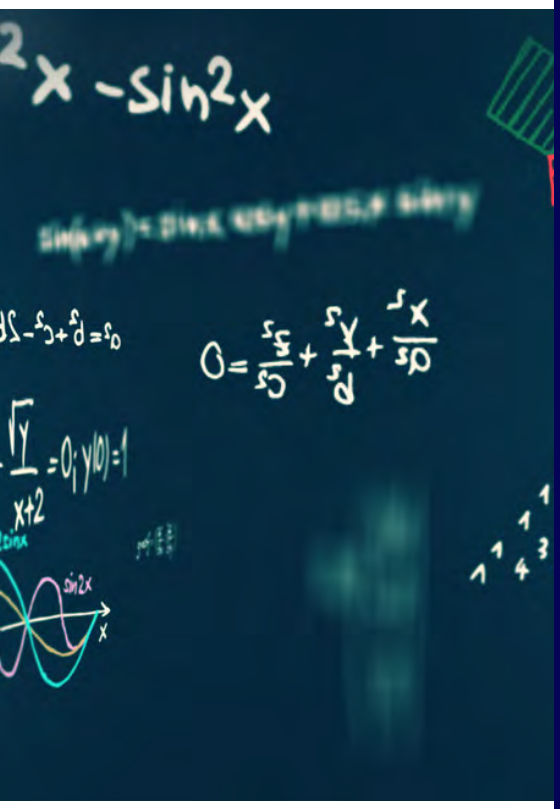
General Mathematics is skills based. It will support you participating in a huge range of industry areas including sports, arts, banking, business and hospital administration, retailing, gaming and more.
How does Facebook know who you 'might' know? What sort of savings plan will guarantee you enough money to travel the world? Can a business predict when it will make a profit? Are the statistics quoted in the news really true? This are just some of the mysteries you could uncover with the skills and knowledge pursued in these subjects.

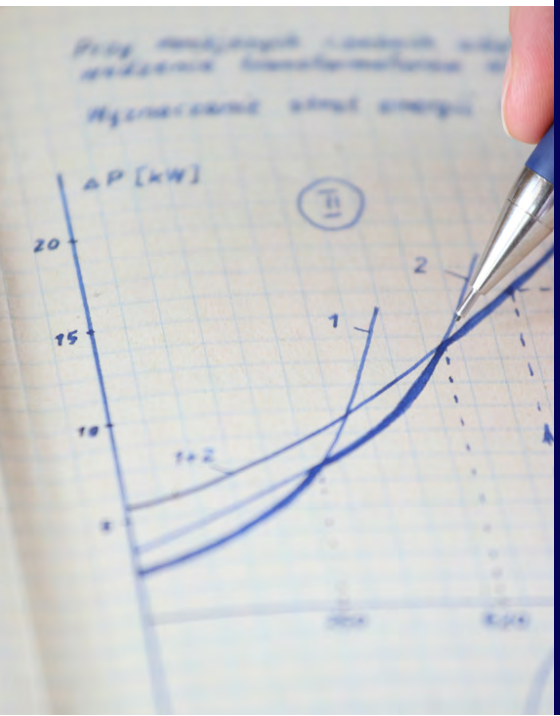
Careers in Mathematics

- Teaching
- Nursing
- Accounting/banking
- Surveyor/valuer
- Retail buying
- Market research
- Laboratory technician
- Bio scientist

General Mathematics video:
https://youtu.be/7XcmGspvwuM

Understanding different VCE Mathematics pathways:
https://youtu.be/iiViZUHuWqA





SUBJECT

MATHEMATICAL METHODS

What is Mathematical Methods?

Mathematical Methods provides an introductory study of simple functions of a single real variable, algebra, calculus, probability and statistics and their applications in a variety of practical and theoretical contexts.

Why study Mathematical Methods?

How do we know what dose of a drug is safe for a child? How do emergency rescue teams know where to look for a bushwalker lost in the Grampians or a missing plane in the Indian Ocean? Why are scientists so sure about climate change? This subject delves into the complex mathematics needed to solve advanced but very real problems in business, technology, life sciences and engineering.

Mathematical Methods is often a prerequisite for entry to many university course. During your VCE years, studying this subject will also support your studies in Physics, Chemistry and Biology.

Careers in Mathematics

- Aerospace engineer
- Agricultural scientist
- Biochemist
- Civil engineer
- Environmental engineer
- Financial dealer/broker/analyst
- Industrial designer
- Medical scientist
- Optometrist
- Pilot
- Programmer
- Radiation therapist
- Urban Planner

Mathematical Methods video:
https://youtu.be/AP2elk8zJCE

Understanding different VCE Mathematics pathways:
https://youtu.be/iiViZUHuWqA

SUBJECT

PHYSICAL EDUCATION

What is Physical Education?

Physical Education is the study that explores the multiple relationships between anatomy, biomechanics, training, skill acquisition and energy supply to working muscles. They explore this relationship to not only improve an individual's health and fitness, but also improve elite performance.

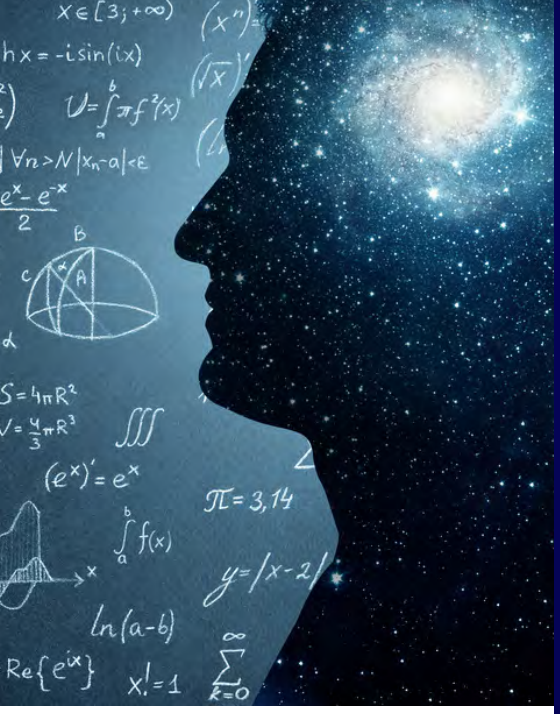
Why study Physical Education?

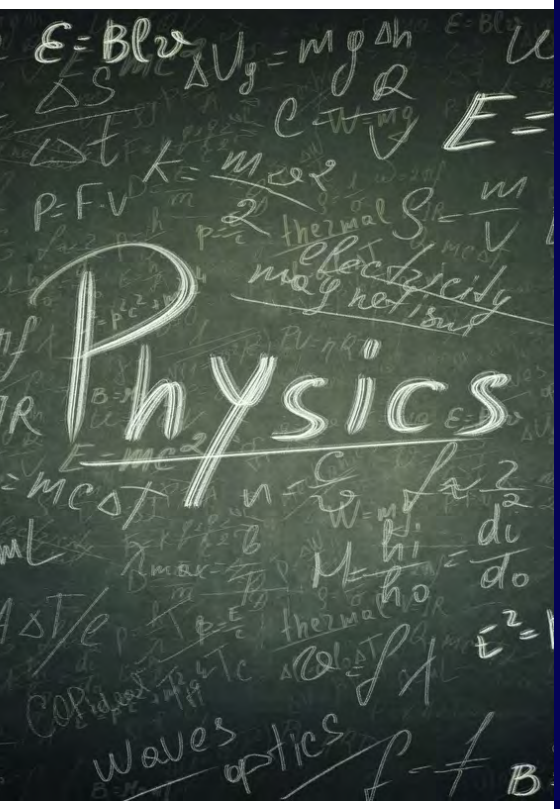
Students gain an understanding of how the body systems (particularly respiratory, cardiovascular, and muscular systems) work together to produce energy for exercise. They also learn to link intensity and duration of exercise to energy system supply, fatigue and recovery. Students learn to apply this knowledge to developing appropriate training programmes to improve fitness and sporting performance.
Socio-cultural, behavioural, and physiological issues are studied to enhance performance and engagement in life long physical activity within communities.
Students apply practical skills throughout the four units of study, participating in a range of modified games, sports, and training techniques to ensure they understand the theoretical concepts. The application of key knowledge and skills give students an exposure to a range of real-world settings.

Careers in Physical Education

- Exercise and sport science
- Health science
- Education
- Recreation
- Sport development and coaching
- Health promotion and related careers
- Physiotherapy
- Personal trainer

Physical Education video:
https://youtu.be/wo1KO9uAP1U





SUBJECT

PHYSICS

What is Physics?

Physics is crucial to understanding the world around us, the world inside us, and the world beyond us. It is the most fundamental science. The subject matter of physics includes mechanics, heat, light and other radiation, sound, electricity, magnetism, and the structure of atoms.

The goal of physics is to understand how things work from the first principles.

Physics reveals the mathematical beauty of the universe at scales ranging from subatomic to cosmological.

Why study Physics?

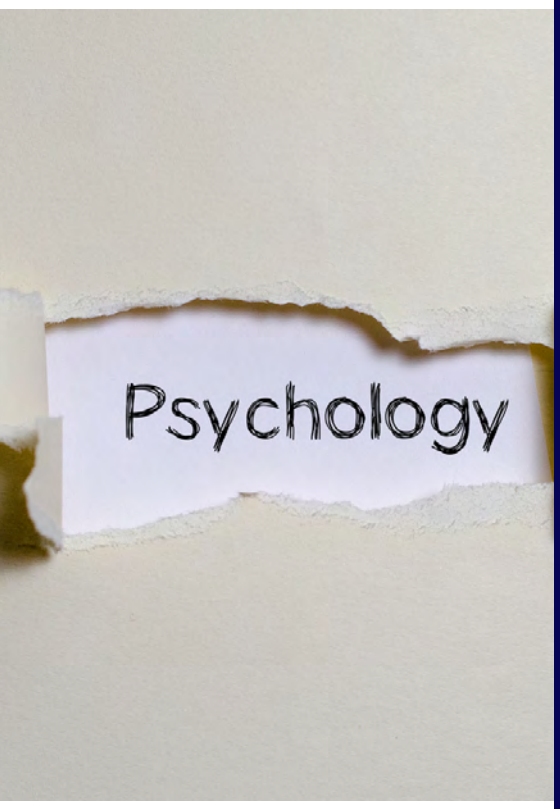
Physics challenges our imaginations with concepts like relativity and string theory. It leads to great discoveries, like computers and lasers, that lead to technologies that change our lives—from healing joints to curing cancer to developing sustainable energy solutions.

Studying physics strengthens quantitative reasoning and problem-solving skills that are valuable in areas beyond physics.

Careers in Physics

- Engineer
- Physicist
- Scientist
- Healthcare scientists
- Physics researcher
- Physics teacher or professor
- Radiography assistants
- Programmer
- Project manager
- Data analyst

Physics video:
https://youtu.be/c8E3p9JMfV0



SUBJECT

PSYCHOLOGY

What is Psychology?

Psychology is a broad discipline that incorporates both the scientific study of human behaviour through biological, psychological and social perspectives and the systematic application of this knowledge to personal and social circumstances in everyday life.

Why study Psychology?

Psychology can help you understand yourself. You'll gain an understanding of the people around you. It can help you become a better communicator. You will develop critical thinking skills and gain an appreciation for human development throughout the lifespan. Psychology gives you a greater insight into mental health and mental illness. Psychology is FUN and FASCINATING.

Careers in Psychology

- Counselling psychology
- Clinical neuropsychology
- Clinical psychology
· Community psychology
- Educational and developmental psychology
- Forensic psychology
- Health psychology
- Organisational psychology
- Sport and exercise psychology

Psychology video:
https://youtu.be/lqKDZ8ig9ho

SUBJECT

ART MAKING AND EXHIBITING

What is Art Making and Exhibiting?

Art Making and Exhibiting focuses on learning about how artworks are made. It is a very practical, hands-on subject where you get to explore using different art making materials and techniques.

You will also study other artists and learn how they make artworks and where they get their inspiration from.

Why study Art Making and Exhibiting?

You will develop your skills in many different art forms such as: paintings, drawings, lino prints and digital artworks. You will be creating artworks about many different subjects including: portraits, figures, landscape, still life, anime characters and animals. You will choose what themes and what materials to make art from. This requires lots of self-motivation but is extremely rewarding. You will write a proposal for an area of exploration and then record all your progress in a Visual Diary. You will keep a record of all your experiments and trials with various materials, as well as all the ideas that you have for artworks. You will create finished artworks and plan how they will be presented.

Careers in:

- Commercial art
- Architecture
- Art design & business
- Town planning
- Cartography
- Interior design
- Industrial design
- Fashion design
- Education
- Illustration
- Photography

Studio Arts video:
https://youtu.be/PsnX1rqm83o

SUBJECT

OUTDOOR AND ENVIRONMENTAL STUDIES

What is Outdoor and Environmental Studies?

Education of healthy relationships through sustainable outdoor experiences. It's being able to understand our connection to nature and how we can improve on it in the future. Students will learn about sustainability and what a healthy environment should look like and learn more about how we can play our part in limiting climate change.

Why study Outdoor and Environmental Studies?

Students will develop a greater understanding of how we have used the environment over the last 200 years, how and why our perspectives have changed from using the environment to protecting the environment.

Students will also gain a deeper understanding of the importance of sustainability and green building design.

Due to the nature of the course students will undertake a range of recreational pursuits to help them develop a better understanding of what they are learning about. Excursions may include:

- Two night surf camp at Sandy Point
- Overnight hike at Wilson's Promontory
- Day trip to Phillip Island
- Downhill snowboarding

Careers in Outdoor and Environmental Studies

- Marine biologist
- Environmental scientist
- Jobs requiring green energy, green building knowledge
- Parks Victoria ranger
- Conservation management
- Sustainability management
- Environmental education and leadership

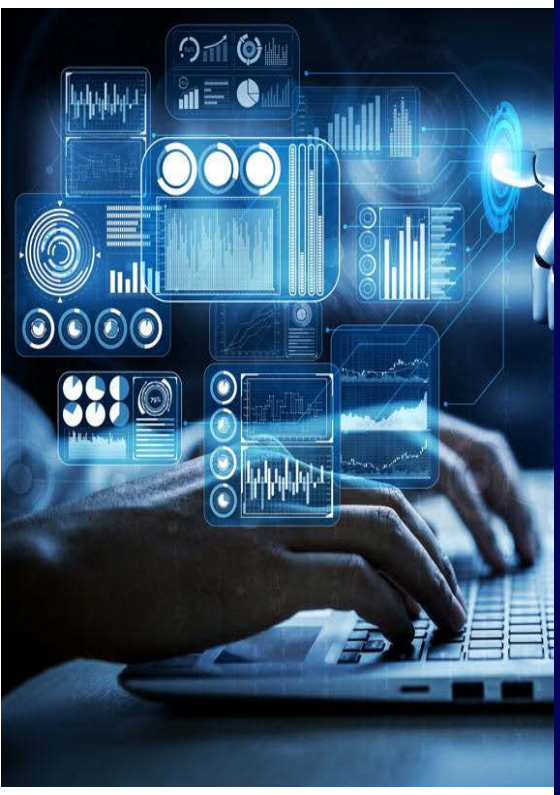
Outdoor and Environmental Studies video:
https://youtu.be/Q7B32CZPpX8

SUBJECT

ENVIRONMENTAL SCIENCE

What is Environmental Science? Environmental science is a multidisciplinary field focused on the study of the environment and the interactions between humans and their surroundings. It integrates various scientific disciplines like biology, chemistry, physics, and earth science to understand and address environmental issues. The field aims to understand natural processes, how humans impact them, and develop solutions for a sustainable future.

Why study Environmental Science? Studying environmental science is crucial for understanding and addressing pressing global issues like climate change, pollution, and biodiversity loss. It equips individuals with the knowledge and skills to find solutions and promote sustainable practices, making a positive impact on the planet and its inhabitants.

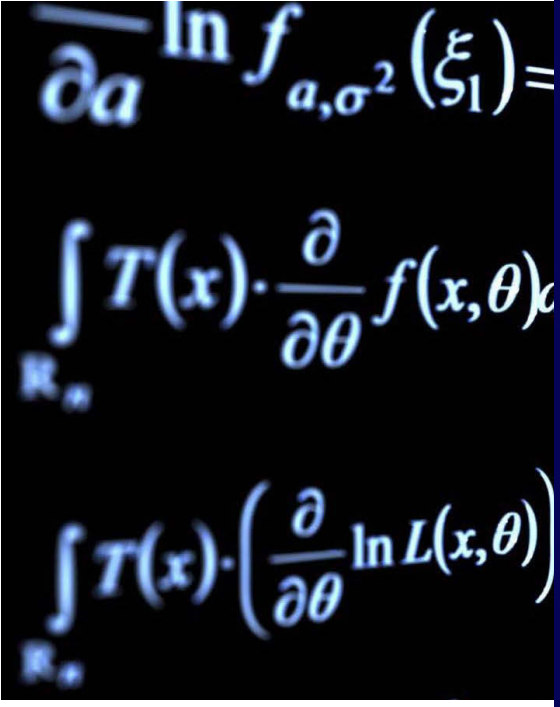


SUBJECT

APPLIED COMPUTING

What is Applied Computing? VCE Applied Computing is a study that equips students with the skills and knowledge to use technology to solve real-world problems. It focuses on developing practical skills in areas like software development, data analysis, and digital systems, preparing students for careers in the ever-evolving tech landscape.

Why study Applied Computing? Studying Applied Computing provides a pathway to careers in a wide range of exciting and in-demand fields, including software development, data science, cybersecurity, and more. It equips individuals with the practical skills and theoretical knowledge needed to adapt to the rapidly evolving technological landscape. Furthermore, it enhances problem-solving abilities, fosters innovation, and provides a strong foundation for further study in related areas.



SUBJECT

FOUNDATION MATHS

What is Foundation Maths? Foundation Maths is designed for students who are not intending to pursue higher-level mathematics studies in their final year. It focuses on applying mathematical knowledge and skills to real-life situations, preparing students for practical applications in workplaces, further education, and everyday life. The subject emphasises the use of mathematics in everyday contexts, such as financial calculations, data analysis, and measurement.

Unlike General Mathematics, Methods, or Specialist Mathematics, Foundation Mathematics is not designed to lead to further study in these areas.

Why study Foundation Maths? Foundation Maths focuses on using mathematics in everyday contexts, making it relevant and engaging. It's designed for those who prefer hands-on learning and applying math to everyday tasks like managing finances, analysing data, and solving practical problems.

Carwatha College P-12

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