



Year 9 ExCEL Handbook 2024

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LEARNING4LIFE

Be a Man.....Become a Man - Code: 9xBM

Description

This program covers the following topics:

- Forming and maintaining relationships
- Communicating in relationships
- Feelings and thoughts in relationships
- Social problem solving
- Body image and associated issues/pressures
- How to seek help for yourself and others

Assessment

This program will be assessed using the following methods:

Students will be asked to complete an assessment task that consolidates their learning from the workshop sessions and provides them with the opportunity to practice skills and to reflect individually on issues raised. A group assessment on men's health takes place in the second week.

Weekly Outline

Day 1

- Getting along with others
- Communicating in relationships
- Solving problems in relationships
- Factors affecting how a young person perceives themselves
- Consideration of various issues relating to body image

Day 2

- Explore issues and themes relating to masculinity through the viewing of video clips and participation in various interactive activities.
- Complete a group research task on a men's health organization, and present this to the class.

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Brain Boot Camp – 9xBB

Description

This program is aimed at students who want to improve their life skills and academic performance. Good thinking is essential for optimum performance across all aspects of life. How we understand new material and how we apply this understanding to new situations in assessment tasks is all built on good thinking. In this subject, students will learn about psychology and the brain and assess the state of their thinking to help them improve it. Through games, puzzles and activities students will investigate modes of thinking such as: logic, lateral thinking, creative thinking, problem solving, seeing things from multiple perspectives and decision making.

Assessment

- Workbook
- Presentation on a brain disorder

Weekly Outline

Day 1

1. Riddles and memory challenge.
2. Brain structure and function. Students will learn about the structure and function of the brain and different left and right learning styles. Students will learn and experience the effects of sleep deprivation and brain function.
3. Introduction to deduction and lateral thinking. Students will be shown the laws of logic and then apply these in areas such as: logic puzzles, set theory, and applying a set of rules to different situations. Conundrums will be presented in small groups and the process of finding solutions will be recorded, analysed and discussed.

Day 2

1. Understanding the behaviour of others. Students will consider some basic psychological theories of desires/drives/motivations, e.g. Maslow through a series of activities. They will complete a questionnaire on desires/drives/motivations and discuss morality in decision making.
2. Memory. Students will learn different strategies to improve their memory, such as acrostics, mnemonics and visual concepts.
3. Presentation. Students will present findings on the impacts of a brain damage/disorder.

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Buying & Owning a Car - Code: 9xBC

Description

In this course students will investigate various aspects of car ownership: getting your Ls; budgeting/saving/borrowing to buy the car; types of loans, application forms; insurance types and insurance application; calculation of running costs; road safety issues; and legal responsibilities.

Assessment

This program will be assessed using the following methods:

- Students will complete set research/investigative activities over the two days. They will submit a brochure on the key facts of searching for a new car and present their findings of getting your L's and P's.

Weekly Outline

Day 1:

Internet research on types of cars, and the alternative ways of buying a car. Students will be required to research finance and insurance options and will be introduced to some of the legal requirements and protections relevant to buying a car. An overview of the on-going costs of owning a car and the common maintenance concerns. An look at buying a car using websites and some of the mechanical details to inspect when purchasing a car The students will present their findings via a brochure.

Day 2:

The steps involved in obtaining a Learner's permit to drive. Students will be required to investigate car hazards and safety. Buying a new car versus a second-hand vehicle. How to formulate a budget to enable your first car purchase. Students will complete a PowerPoint aimed at 16-year-olds about to get the L's.

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Career Voyager - Code: 9xCV

Description

Career Voyager provides students with the opportunity to consider their personal skills, interests, values and personal qualities in an attempt to link these with future career options. Students come to understand the importance of self-awareness in making pathway and career decisions, explore a variety of career tools and resources and learn about occupations of interest.

Assessment

This program will be assessed using the following methods:

- Students are to complete the Career Voyager activity booklet.

Weekly Outline

Day 1

Students will attend a local university and participate in career development activities to aid their understanding of their personal skills and interests and the relationship of these to career-focussed thinking and behaviour.

Day 2

Students participate in a variety of activities to research professions of interest to them and consider valued skills and traits required for various occupations.

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The Edible Garden - Code: 9xEG

Description

In this course students will develop the knowledge and skills of how to grow fresh, seasonal produce and then use it as a basis to prepare nutritious and satisfying meals. Students are given the skills and experiences they need to learn to enjoy growing their own produce successfully and then making healthier choices about what to cook and eat for a better life limiting their chances of developing dietary related illnesses. Students will increase their knowledge and awareness of environmental sustainability – closing the gap on food waste by learning to compost successfully.

Assessment

This program will be assessed using the following methods:

- Students are to complete the Edible Garden booklet
- Cooking, kitchen safety and hygiene protocols
- Safety and work ethic in the garden

Weekly Outline

Day 1 and Day 2

Students will participate in hands on gardening, successful composting and preparing garden beds for seasonal plants or seeds. In the afternoon students will then take an ingredient from the garden and create healthy meals such as pesto pasta, vegetable frittata, herb omelette, filled focaccia, summertime pasta etc.

First Aid & CPR - Code: 9xFA

Description

In this course students will develop the skills and knowledge required to recognise emergencies, identify and eliminate potential dangers in their environment and make appropriate decisions for first aid care until the arrival of medical assistance. Students will learn a variety of basic first aid management procedures and undergo training and assessment in CPR and Anaphylaxis.

Assessment

This program will be assessed using the following method:

- Students will be assessed on their CPR technique amongst other practical skills such as Anaphylaxis management.
- Students will complete a written assessment on various sports injuries.

Weekly Outline

Day 1

Introduction
Incident Report forms
Heart conditions
The Unconscious Patient / Recovery position
DRABSCD
CPR practical assessment

Day 2

Fractures
Soft Tissue Injury - RICER Bleeding and wound management
Bandaging and Slings
Anaphylaxis and Anaphylaxis Practical Assessment

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Outdoor Education - Code: 9xOE

Description

Students will undertake both skills and an adventure component as a precursor to the Year 9 Outdoor Education camp program later in the year. A range of Outdoor Education skills and adventure activities will be offered, activities may include; navigation and orienteering, shelter construction, food preparation, knot skills, rock climbing, mountain bike riding, bushwalking and group initiatives. This course provides an excellent base for accelerated studies in VCE Outdoor and Environmental Studies in Year 10.

Assessment

This program will be assessed using the following method:

- Competency and participation in various skills and adventure activities

Weekly Outline

Day 1 (may include, but not limited to)

- Introduction to Outdoor Education and Year 9 Camp
- What is adventure?
- Understanding and comprehension of the necessities of preparing for outdoor adventure, including; equipment, health hygiene and menu plans
- Skills: orienteering excursion at Gresswell Reserve, shelter construction, knots and basic team building exercises

Day 2 (may include, but not limited to)

- Adventure activity: mountain bike riding, rock climbing or bushwalking

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Streetwise - Code: 9xSW

Description

This is a wide-ranging drug education program following the "harm minimisation model". This program acknowledges that students will at some stage encounter issues relating to drugs, either legal or illegal. The program aims to equip students with vital knowledge, which will help them to make informed decisions when faced with these issues. Throughout the program students will learn assertive behaviour, how to 'look out for and look after themselves and their mates' and where to access quality Drug Education Information and Support Services.

Assessment

This program will be assessed using the following method:

- An analysis of student's own creative narrative, focusing in on the impacts of alcohol & drugs on young people.
- A group task- highlighting, discussing and analysing the outcomes of alcohol and drug use in real world situations.

Weekly Outline

Day 1

Students will get a clear picture of drug use and abuse and the impact that it has on individuals, families and the wider community. They will explore a variety of legal and illegal drugs and learn about the effects that they have on the body. The drug in focus will be alcohol. Discussion, audio visual presentations, quizzes, roll plays and practical activities will be utilised to engage students throughout the day.

Day 2

Students will continue to broaden their knowledge of illegal drugs. They will learn about the highly addictive and destructive nature of Methamphetamine, which has been nominated by the government and public as the illegal drug of most concern, amongst investigating other illicit substances. Likewise continuing to engage in discussion, audio visual presentations and practical activities.

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Manchester City - Code: 9xM1 /9xM2

NOTE: This program is **only** for students currently involved in the Manchester City Football School.

Description

Students that are part of the Manchester City Football School will continue their involvement of the program as two rounds of Learning 4 Life. The Excel component of the program will include excursions and high-performance sessions.

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EXTENDED LEARNING PROJECTS

Art and Design - Code: 9xAD

Description

In this exciting course of art and design exploration, students will learn how to use digital means to take images, manipulate these using Photoshop and use them as inspiration to create a large-scale painting. With these methods learnt, students are then able to create self-portraits and manipulate these and allow them to create a large-scale quadrant artwork using a range of methods, media and materials to enhance their ideas. They present their work by creating a display board with their work presented which is enhanced by their own creative style. Inspiration is taken from a range of different artist and designers, in particular, Australian artists and how they have formed their own identity through art and design.

Assessment

This program will be assessed using the following methods:

- Task 1 – Digital photography manipulation and understanding photoshop.
- Task 2 – Painting using abstract digitally manipulated images.
- Task 3 – Quadrant self-portrait painting in different methods, media and materials.

Weekly Outline

Day 1

Understanding art and design and the ways we see this in the world. Research into work from Archibald Prize. Digital photography using Digital SLR cameras and other photography techniques, manipulating photos using photoshop.

Day 2 and Day 3

Using images taken, students create an abstract painting on canvas.

Day 4

Gallery exhibition visit- Excursion.

Day 5

Portrait taking using digital SLR's and photo manipulation for self-portrait work. Using digital media to present ideas and create an identity. Further tutorials on digital media programs.

Day 6 and Day 7

Quadrant painting using a range of media, methods and materials.

Day 8

Presentation of work using ideas throughout the cycle to create presentation boards.

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'The Big Issues' - Code: 9xBI

Description

This program aims to explore the ins and outs of students' journey to becoming a man by addressing some of the major social issues facing young people today. This subject talks the talk as we redefine the journey to manhood by tackling the big issues, aiming for students to become positive leaders in the community and downright good blokes.

Assessment

This program will be assessed using the following methods:

- Students will be asked to complete assessment tasks that consolidates their learning from the workshop sessions completed and provides them with the opportunity to individually reflect on issues raised.

Weekly outline

Day 1- Masculinity with the Man Cave

We will explore our own version of the Aussie man including the impact rigid masculine gender stereotypes and expectations have. Students will learn a variety of tools and skills to improve the state of man, build stronger connections between their peers and those they care about. Students will learn about gender's historic evolution and how fear of judgement and excessive 'banter' affects individuals and the culture of a cohort.

Day 2- Gambling and addiction by Victorian responsible gambling foundation

Analyses the potential influences that may shape students' gambling attitudes and behaviour. Students view, analyse and discuss a wide variety of media content, including gambling ads. They learn about current forms of gambling – such as social casino games, skins betting and loot boxes – in order to prevent harm and encouraging informed choices.

Day 3- Safe Partying by Elephant Ed

Aim to empower students to make informed and safe decisions regarding drugs and alcohol. Topics include legalities and statistics around alcohol and drug use, warning signs and limits, peer pressure, seeking help and how to support peers.

Day 4- Mental health and body imagery by Butterfly Foundation

Covers the risk and protective factors for body dissatisfaction. These include the challenging cultural ideals and unhelpful language around appearance, using media and social media positively to inspire body confidence, deciphering unhelpful and potentially harmful health-related messaging, managing pressures and combating the inner critic.

Day 5- Gender and identity by Body Safe Australia

Promoting more respectful relationships with the aim of preventing harmful language and labelling. Students will explore power imbalances in different contexts and the inequalities that cause these imbalances including gender, race, sexuality etc.

Day 6- Sex and Sexuality by Body Safe Australia

This session aims to increase the understanding and empathy of students and offer solutions to some of the challenges facing sex, sexuality and gender diverse students in our community.

Day 7- Sexual Education

Students will identify safer sex practices whilst becoming informed about the latest contraception options, methods of STI prevention and available health services. They will explore the difference

between what the media (including pornography) presents as love, sex and relationships and the reality of this.

Day 8 Consent and the law by Body Safe Australia

Students explore the concept of sexual consent and respecting boundaries. This topic covers the difference between consent and compliance, investigates the pressures and persistence young people face, how to manage rejection and the legalities including age of consent and free agreement.

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CO₂ Dragsters (STEM) - Code: 9xDR

Description

Students will design, construct, test and race a CO₂ powered dragster. We will investigate aerodynamic principles of lift, drag and down force and apply these to the design and construction of the dragsters. Students will test their vehicles under race conditions and evaluate their performance.

Assessment

This program will be assessed using the following methods:

- Students will be assessed on the research work and folio produced during the design, construction and testing phase of the project. The finished dragster will also be assessed.

Weekly Outline

Day 1

Investigation of aerodynamic principles and begin research into exploring a range of car designs. They will then begin designing their dragster with a series of sketches, based on their research, selecting colour and surface graphics.

Day 2

With Orthographic drawing methods and rendering techniques students produce a series of drawings of four sides of a vehicle that will be the basis of their final car design. This will then be used for transferring their design onto a balsa block.

Days 3 - 5

Construction of dragsters using a range of tools in the workshop.

Day 6

Students attend organized excursions to the Fox Car Museum and other exhibits of car design. This is to look at the input of aerodynamics into car design.

Days 7 & 8

Final testing and modifications before race time. Organised Race which students organize and record results. Students also expected to complete research and folio work that documents the design and construction of their car.

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Defining Law & Influencing Change - Code: 9xDL

Description

The aim of the unit is for students to investigate the three-tiered parliamentary system, the process of law-making that exists, and the democratic processes available to the community in voicing concerns and initiating change. Students will identify and research an area of concern in relation to a law they feel needs to be addressed. They will then work towards providing a detailed proposal for change.

Assessment

This program will be assessed using the following methods:

- Folio of work
- 'People Power' PowerPoint
- 'Changing the Law' Campaign

Weekly Outline

Day 1

Introduction and outline. Investigation into the Australian Parliamentary system.

Day 2

Excursion to Magistrates Court and Old Melbourne Gaol. Developing an understanding of the workings of the court and exploring the issues and consequences around 'culpable driving' through re-enacting an actual culpable driving court case that occurred.

Day 3

Excursion to Parliament House, Melbourne Town Hall and Old Treasury Building. Students are given a tour of Parliament House, and a talk on its function within our democracy. Students will visit the Melbourne Town Hall to be briefed on the role local council plays within our three-tiered system. Students later participate in a tour of Old Treasury Building, with a particular emphasis on early democracy in Victoria, and how that has helped to shape our society today.

Day 4

Examination of famous Australians who have played a significant role in creating change in society and investigation into one of these people, undertaking a research task on them.

Day 5

Students view the film "12 Angry Men", looking into the way the jury system works. They explore some of the themes of the film in completing set class work.

Day 6

Students will choose an issue that they would like to focus on for their 'Changing the Law' campaign. They will complete considerable research on the issue, which will inform and direct the nature of the campaign that they produce.

Day 7

Students will present their campaign to the class. They will also engage in a workshop run by the Victorian Electoral Commission, exploring the whole process of voting and democracy.

Day 8

Students view the film "Erin Brockovich", looking at it as an example of 'people power' in action, with one woman galvanising a community to take action against a huge energy corporation. Students evaluate the course. An end of course lunch takes place at the Preston market.

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Defying Gravity (STEM) - Code: 9xDG

Description

Students will be involved a number of problem solving activities where they will use their knowledge of Physics to complete a series of challenges. Activities are focused on how science can overcome and/or use the force of gravity and will be completed in a group setting.

Assessment

This program will be assessed using the following methods:

- For each day a Journal entry will be written and then submitted at the end of the course.
- A major research and scientific report will be completed based on the Balsa wood gliders activity.

Weekly Outline

Day 1

Students will construct a catapult from given materials and launch a tennis ball. This activity revolves around mechanical advantage and imparting energy.

Day 2

Students will design and construct an air canon using plumbing supplies and balloons. This activity explores the use of air pressure and movement as a force.

Day 3

Students will be asked to design, construct and then fly an airship around an obstacle course using motors and control boxes. This activity will also involve some electronics.

Day 4

Field trip. Students will make observations of the different types of wings and planes at the National Aviation Museum at Moorabbin airport. This will be the beginning of their investigation in to the principals of flight

Day 5

Students will continue researching the physics of flight. They will write an introduction for their major assessment. They will also begin writing a scientific report including Aim and Materials

Day 6

During this 6 period day the students will design, construct, test and fly a Balsa wood glider. They will use their knowledge of the principals of flight gained from the field trip and research.

Day 7

Students will complete their scientific report on Balsa wood gliders. This will include in depth analysis, discussion and conclusions on the success of the gliders.

Day 8

A fact or fiction analysis of the forces of gravity as portrayed in popular media

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Ecological Tourism: Exploring the Bike Paths of Melbourne's North - Code: 9xEC

Description

This program is designed for students to use bicycles to explore Melbourne's bike paths, map these bike paths using a variety of mapping and geospatial technologies and then conduct research into their environmental, social and historical significance. Once completed students will then create an ecotourism publication or website that can be offered to people wanting to explore these areas.

Assessment

This program will be assessed using the following methods:

- Field work: fulfilment of a number of competency requirements for cycling, mapping, and research
- Ecotourism: demonstration of an understanding of the concept of Ecotourism through the presentation of a hypothetical ecotourism business
- Publication / website: creation of a publication which demonstrates geospatial skills, environmental, social and historical understanding of Melbourne bike paths

Weekly Outline

Day 1

Ecotourism: what is it? Workshopping the concepts of ecotourism. Understanding of the need for ecotourism in the context of growing environmentalism. Mapping and geospatial skills workshopping and route planning using 'MapMyRide' / 'Strava' or similar.

Day 2

Mapping and geospatial skills workshopping and route planning using. Bicycle safety check, cycle skills session and practice ride: Plenty River trail.

Day 3

Field work: Darebin Creek trail. Cycle Parade College (Bundoora) to Clifton Hill station via Darebin Parklands and Darebin Creek Management Committee.

Day 4

Investigation of Ecotourism opportunities around Australia along with key international destinations. Publication / webpage production. Mapping and geospatial skills workshop and route planning using 'MapMyRide' / 'Strava'.

Day 5

Field work: Plenty River, Main Yarra, or Capital City trail. Cycle Parade College (Bundoora) to Clifton Hill or Jolimont station via Fairfield boathouse and Dight's Falls.

Day 6

Publication / webpage production. Mapping and geospatial skills workshop and route planning.

Day 7

Field work: Capital City trail, Burnley bouldering wall and Yarra River exploration.

Day 8

Publication / webpage completion and presentation

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Engineering: Bridge Building (STEM) - Code: 9xBR

Description

Bridge Building explores the fundamental elements of engineering involved in the design and construction of the built environment. The focus of investigation are bridges. Over eight weeks students are given a broad introduction to the theory behind design and construction in the built environment and develop their understanding through applying this knowledge to their own design and construction projects.

Assessment

- Workbook
- Research Assignment based on fieldwork
- Design Folio
- Model Construction

Weekly Outline

Week 1 – Introduction to Bridge Building: Distribution of Workbook; introductory video; in-class tasks based on Workbook.

Week 2 – Continuing development of student understanding of the principles of bridge building. Students continue working on their Workbook. Film 'Building of the Rion-Antirion Bridge' and discussion. Basic introductory design and construction by designing and construction of a basic 200mm² frame. Preparatory discussion for fieldwork.

Week 3 – Bridges of Melbourne Fieldwork: Students investigate different bridge types in Melbourne and are allocated their own bridge to research using field notes and photographs.

Week 4 – Research Presentation: Students produce a PowerPoint based on their fieldwork research which they present to the class.

Week 5 – Video (The Building of the Brooklyn Bridge) in preparation for the submission of their Workbook; students also begin working on their box-girder bridge design.

Week 6 – Designing of model bridge continued; construction of model .

Week 7 – Design and construction: Students use their box girder bridge designs to construct a model.

Week 8 – Construction and evaluation: Students complete their box girder bridges and subject them to load testing and evaluation.

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Journalism - Code: 9xJR

Description

In this class students will learn the basic skills and principles of print journalism. The focus will be student-driven, with emphasis placed on (but not limited to) the news, current affairs, sports, the arts and tourism. Students will work independently and collaboratively to write a variety of different pieces. The course is student-centred and students are encouraged to take initiative and be the drivers of their own learning process. Throughout the program students will journey to multiple locations to conduct research that will drive the focus of their writing.

Assessment

This program will be assessed using the following methods:

- Students will be required to publish a news article, based upon their research and observations on excursion .
- Students will be required to work collaboratively to publish a feature article, focused on a person of interest.
- Students will be required to complete a series of reflections on their excursion experiences.

Weekly Outline

Day 1

Brief and instruction on the skills and principles of journalism. Students will compete in a scavenger hunt and begin Practicing good journalism modules.

Day 2

Excursion- Field work.

Day 3

Introduction to the different styles of writing commonly used by journalists:
Feature Writing Drafting, Editing & Production.

Day 4

Excursion- Field work.

Day 5

Introduction to the different styles of writing commonly used by journalists:
News Article Drafting, Editing & Production

Day 6

Excursion- Field work.

Day 7

Students will research, create and deliver original, informed and accurate published feature and news articles/content.

Day 8

Portfolio of writing finalisation. Students will reflect on excursions in an opinion piece.

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Markets in Australia - Code: 9xMK

Description

Australia has a market type of economic system with many different types of markets operating within this system. Markets are institutions or organisations used to make economic decisions, where particular goods or services are bought and sold at prices that are negotiated between buyers (creating a *demand*) and sellers (creating a *supply*).

Students will examine this principle of demand and supply through a range of different markets in Melbourne. Students will visit various retail markets in their local area, and Melbourne's CBD, such as Melbourne Central, QV centre, and Myer Emporium, as well as the South Melbourne Market. On these visits' students will identify the common elements and what drives demand and supply in each. Students will investigate how their consumer choices affect these markets.

Assessment

This program will be assessed using the following methods:

Assessment will be by completion of:

- Set activities/worksheets on practical learning days
- An investigative Report and presentation of a particular market.

Weekly Outline

Day 1

Introduction to the concept of 'Market' and an investigation of unique markets operating in Australia and the world. Introduction to the basic economic concepts of supply and demand.

Day 2

Investigation of Retail markets in Melbourne's CBD – Comparison of demand and supply in Melbourne Central, QV Centre, and the Melbourne Emporium.

Day 3

High Street & Preston Market Investigation; research on the number of stalls and other services, transport and parking access, mapping, demand & supply, competition.
Examination of the property market.

Day 4

South Melbourne Market Investigation- research on the number of stalls and other services, transport and parking access, mapping, demand & supply, competition and comparison to Preston market.

Day 5 School based investigation of a number of markets, e.g. AFL player market, stock market. Examination of the ethics of various markets such as the chocolate and coffee market.

Day 6. Visit to CBD- Investigation of the Tourism market in and around Melbourne's CBD

Day 7. School based research: Students to work on the Investigative Report and Presentation

Day 8 Report Collation Day and Presentation Day and Windup activity/activities

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Mechatronics (STEM) - Code: 9xMT

Description

Mechatronics is a STEM technology program combining electronics and mechanical engineering with virtual world and real robots. Using robotics, artificial intelligence, game design and computer science students learn to code, program and use virtual and real robots to solve problems and develop robotic projects with real world and gaming applications.

Assessment

This program will be assessed using the following methods:

- Modules in virtual world coding and physical robotics
- Robotic challenges
Advanced option: students may design and build a robot for an entrepreneurial solution.
- Analysis and reflection of the benefits and challenges of artificial intelligence

Two options will be offered;

- Option 1 for beginner coders
- Option 2 for advanced coders with a passion to make robots for real world applications

Weekly outline: Option 1 (virtual world)

Day 1

Introduction to course and software

Expedition Atlantis

Virtual world: Moving forward sub-module and Sensabot challenge

Day 2

Build physical robot

Physical robot: Sensabot challenge

Day 3

Virtual world: Finish Orchard Challenge

Physical robot: Orchard Challenge

Virtual world: Touch sensor and vacuum challenge

Day 4

Physical robot: Vacuum challenge

Virtual world: Sonar sensor and maze challenge

Physical robot: Maze challenge

Artificial intelligence movie analysis

Day 5

Virtual world: Gyro sensor and mower challenge

Physical robot: Mower challenge

Virtual world: Colour sensor and traffic light challenge

Day 6

Virtual reality escape room excursion and game design analysis

Day 7

Physical robot: Traffic light challenge

Virtual world: Loops and Container Handling Challenge
Virtual world: If/else statements and Strawberry Sorter Challenge

Virtual world: Repeated decisions and obstacle orchard challenge

Day 8

Virtual world: Search & Rescue Challenge

Option 2 (Virtual world with physical extension challenges)

Day 1

Introduction to course and software

Expedition Atlantis

Virtual world: Moving forward sub-module and Sensabot challenge

Day 2

Virtual world: Turning sub-module and Orchard Challenge

Build physical robot

Introduction to physical design challenge 1

Day 3

Physical design challenge 1 – planning phase

Physical design challenge 1 – begin build phase

Day 4

Virtual world: Touch sensor and vacuum challenge

Virtual world: Sonar sensor and maze challenge

Virtual world: Gyro sensor and mower challenge

Artificial intelligence movie analysis.

Day 5

Virtual world: Colour sensor and traffic light challenge

Introduction to physical design challenge 2

Physical design challenge 1 – finish build phase

Physical design challenge 1 – competition/showcase phase

Day 6

Crumple cars and bristle bot excursion. Virtual reality escape room excursion and game design analysis,

Day 7

Physical design challenge 2 – begin build phase

Physical design challenge 2 – finish build phase

Day 8

Physical design challenge 2 – competition/showcase phase

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Melbourne: the Dead and the Living - Code: 9xME

Description

Are you ever curious about the city of Melbourne? Few people actually live in the city but thousands work there every day, hundreds of tourists explore it each day and many are drawn to its retail and entertainment centres. By world standards, Melbourne is a young city. But it has layers of history. In this unit students actively explore some of these. This unit is about the history and development of Melbourne and the significant people and events that impacted its growth and development. The more you discover about that past of Melbourne, the more interesting and richer your life becomes living in the modern Melbourne of today.

Assessment

This program will be assessed using the following methods:

- Set activities/worksheets on practical learning days
- Planning and completion of an individual research project on an aspect of Melbourne's history. Eg- the impact of the gold rush or immigration on Melbourne's development.

Weekly Outline

Day 1

Introduction to the subject and preparation for practical learning days.
Timeline of Melbourne's History - the building of a bustling city.

Day 2

Whole group tour of various sites in Melbourne CBD eg (Treasury Museum, Old Melbourne gaol, Melbourne Story Exhibition- Melbourne Museum, State library, Laneways and arcades)

Day 3

Whole group tour of various sites in Melbourne CBD eg (Treasury Museum, Old Melbourne gaol, Melbourne Story Exhibition- Melbourne Museum, State library, Laneways and arcades)

Day 4

Planning day students choose their research topic and plan their Independent learning day investigations.

Day 5

Independent Learning day in Melbourne CBD – students visit historical sites in groups to gather information for their research topic. Half day investigation on the growth and development of modern Melbourne- visiting the Docklands and Southbank areas.

Day 6

Independent Learning day in Melbourne CBD students visit historical sites in groups to gather information for their research topic.
Hoddle Waddle Amazing race

Day 7 Collation of investigation material gathered and work on Project.
Historical investigation of Preston and Northcote.

Day 8 Report Collation Day and Presentation Day and Windup activity/activities

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Exploring Small Businesses in Melbourne - Code: 9xSB

Description

Students will be required to set up a theoretical business using the research they have undertaken during the course. They will be required to provide costings for this business as well as identify a product or service. There is a high importance placed on the location and online presence of the business.

Assessment

This program will be assessed using the following methods:

- Weekly activities
- Field work (Excursions)
- Presentation to the class of your business idea

Weekly Outline

Day 1

General introduction/organisation. Work through several case studies and key business terminology.

Day 2

Discussion and research on the characteristics of entrepreneurs. Spend the afternoon looking at different businesses and their locations, normally in the local area. Identify successful positions for different businesses.

Day 3

Full day excursion to the city. We will travel to St. Kilda. We compare Acland Street and Fitzroy Street's with the areas we are accustomed to at the College.

Day 4

Full day excursion to the city, where we visit Costco and The District Docklands. We get a tour of Costco which is always a highlight (we are the only school group in the state that gets this opportunity!).

Day 5

Marketing. We research "The Last Dance" documentary and the power of high-profile athletes and their ability to help businesses make sales. We then visit ACTV Eltham for a real-life lesson on marketing from the owner, and then we get to complete a gym class.

Day 6

Investigation on business locations and sources of funding. We then look at the different types and ways businesses are owned.

Day 7

Preparation for presentation which is in week 8. There are a number of small business tips that the students must include in their presentations.

Day 8

Completion and presentation of your chosen business. Using ICT and multi-media techniques, students will conduct the assignment which showcases their business idea in a professional and engaging manner. Following this we head to a Greensborough/Northland to conduct an amazing race activity.

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Shark Tank Innovation (STEM) - Code: 9xST

Description

In Shark Tank Innovation, students tackle real-life problems to find innovative, creative solutions for their chosen audience. Students engineer their entrepreneurial skills to design, prototype, test and create 21st Century solutions to problems. In teams, students will research their chosen topic to better understand users and create tailored solutions for them. Shark Tank Innovation caters to all students, especially students who enjoy the challenge of problem solving, creative design, science, technology, business and engineering.

Assessment

This program will be assessed using the following methods:

- Design and engineering challenges – students will participate in a series of engineering challenges designed to develop skills in design, prototyping, reiterations
- Design folio and invention construction – students build models, develop business plans and learn pitch and presentation skills.
- Design, think reflection – students reflect on the design think process.

Weekly Outline

Day 1

Students start the design and engineering challenges by completing the Da Vinci challenge- the inventor of inventions. For their folio students begin by becoming aware of issues or needs, and build empathy with various people or stakeholders. They

Day 2

Students participate in the tower engineering challenge. Sparked by curiosity, students ask questions to better understand their folio issue, and the needs of others. By learning the skills of an elevator pitch students start their pitch.

Day 3

Students work towards the mouse trap engineering challenge. Students research good business plans and research 3 key business plan for their folio issue.

Day 4

Research continues, with an engineering and/or entrepreneurial in/excursion.

Day 5

Students continue with the engineering challenge by completing a virtual and physical Rube Goldberg challenge and analysis. Students learn to use 3D print software to design challenge objects and continue with the key components of their business plan.

Day 6

Excursion; Students work on a 3D printed and physical prototype for their audience. Students combine folio work to analyse, review and write a pitch.

Day 7

From peer feedback students highlight and fix iterations of their prototype and pitch. Students analyse Shark tank pitches and develop slogans and presentations.

Day 8

Students launch their design to an authentic audience.

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SuperCoach - Code: 9xSC

Description

This program is aimed at students who wish to explore pathways for their own development in various sporting fields whether it be playing, coaching, refereeing or as a sports administrator. The program is an ideal lead into future studies in VET Sport and Recreation and is focused on a range of sports including soccer, AFL, track cycling, gymnastics and ice skating.

Assessment

This program will be assessed using the following methods:

- In small groups, students will be shown how to prepare, plan and facilitate a coaching session to their peers. Students will be assessed on the planning and implementation of their coaching session.
- Students will be assessed on their Classwork Booklet- these tasks include studying different styles of coaching, identify characteristics of both good and bad coaches, understanding the different types of feedback, provide reviews on sports coaching movies such as 'Remember the Titans' and complete the planning and review of their group coaching session as well as different excursion reflections.
- Students complete an assessment task on a professional coach and a junior/school coach. They look at the different personal qualities and coaching skills and styles and the importance of these with success in their field. The presentation is completed in class and delivered in a presentation format.

Weekly Outline

Day 1

Students to begin to develop an understanding of what makes a good coach as they begin to unpack the theory component of the course including; different styles of coaching, identify characteristics of both good and bad coaches, understanding the different types of feedback. The teacher will then model a typical training session educating the students on the typical outline of a training session which includes a warm up, conditioning phase/training component & cool down.

Day 2

Students commence their Coaching Biography assessment where they are to research a professional coach and one of their own coaches from their previous experience. They will look at the coach's styles, strengths, weaknesses, highlights, accolades and more. The teacher will then also take the students to the gym and model a gym instructor focus on specific exercises within the gym and how you would coach them.

Day 3

Students explore coaching through 'hands-on', 'practical' sessions at local sporting venues. These are half day excursions. They experience lower profile sports such as Gymnastics and Track Cycling and gain an understanding about learning new skills. These sessions prepare the students well for their own coaching, when they will be teaching their athletes completely 'new' or 'foreign' skills.

Day 4

Students visit Ice Skating Venue and are run through a coaching session around Ice Skating, Safety and Skill Development. They then practise the skill and incorporate what they have learned into their practise.

Day 5

Students explore coaching through 'hands-on', 'practical' sessions at local sporting venues. They experience lower profile sports such as Gymnastics and Track Cycling and gain an understanding about learning new skills. These sessions prepare the students well for their own coaching, when they will be teaching their athletes completely 'new' or 'foreign' skills. If they did Gymnastics first then they will do Indoor Cycling this time and vice versa.

Day 6

Students gather information necessary to plan a coaching session, which will be implemented in the following weeks. They piece their information together to create a safe, sequential, articulate and professional Coaching Plan.

Day 7

Students will attend an activity day at a professional sporting club and view how professional coaches conduct training sessions, challenge their athletes and provide feedback. It could be at a professional AFL club or A-League club depending on training schedules and availability at the time.

Day 8

Students are given an opportunity to plan and run a group coaching activity for their peers at Parade and complete a coaching evaluation post session.

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SuperFoods: Exploring Food Studies - Code: 9xFS

Description

This program will involve an intensive investigation of nutrition. Students will investigate major elements of a good balanced diet and the components of food, focussing on nutrient dense "SuperFoods". The students will also examine the ill effects of a poor diet including the extended use of convenience and take away foods and the marketing tactics used by food producers.

Assessment

This course will be assessed using the following methods:

- Excursion worksheets
- A research task on nutritional "SuperFoods"
- The practical completion of healthy recipes

Weekly Outline

Day 1

Introduction, course outline, research and investigate the composition of breakfast foods. Getting started in a kitchen.

Day 2

Understanding nutrients – the good and the bad. Practical cookery.

Day 3

Research and folio development The A-Z of SuperFoods; practical cookery.

Day 4

Research and folio development The A-Z of SuperFoods; practical cookery.

Day 5

Research and folio development The A-Z of SuperFoods; practical cookery.

Day 6

Field work – Preston Market discovering and investigating foods in natural and healthy state and apply range of food items into to their portfolio. This process will involve sampling, testing, and practical applications.

Day 7

Finalisation of research and folio development, practical cookery.

Day 8

Final cooking class involving lunch and dinner preparation.

Intersection of theatre and Media - Code: 9xTM

Description

An alternative, active and innovative program to experience art. Students explore the themes of superheroes, myths and legends in art. Student will have the opportunity apply "Design Thinking" in their art project. Students should be the driving force behind the choice and direction of their work. There are opportunities to participate large-scale art project, visit art galleries, respond and analyse art works.

This course aims to provide students with a comprehensive understanding of the intersection between media and theatre studies, examining the dynamic relationship between these two fields. Students will explore the scope of theatrical performance and its translations for stage, from film and TV, and explore how different mediums can shape the way stories are told and experienced.

Assessment

This program will be assessed using the following methods:

- Assessment Task 1: Pre production work (story board, intention, audience, treatment, script, costumes, set design etc.)
- Assessment Task 2- Live performance of existing scene from film to stage
- Assessment Task 3 S/N- View film and live theatre show- compare/contrast/reflect

Weekly Outline

Day 1

Pavement Drawing: Image research, preparation, exploration of material and techniques in preparation.

Overview of the course objectives and structure- selections of small group adaptations

- Introduce historical, social and cultural context of Film/TV/Stage performances
- Impacts of Art Media

Day 2

- Audience engagement and impact/directorial intent

- Identification and exploration of stage craft elements (set design, costumes, lighting, sound, props, tech etc.)

Day 3

Developing intention, treatment and scope of scene production

- Investigation of genre conventions and translations

Day 4

Excursion; Addressing and workshopping challenges and opportunities of adapting narratives for performance.

Day 5

- Pre production is completed and submitted for feedback stage craft is completed eg. sound design, script amended, feedback employed.

Day 6

- Dress rehearsal, costume, hair, set, props etc are finalised and employed

Day 7 and Day 8

Performance and evaluation

- Viewing of performances and peer review
- Reflection on the personal and professional implications of the intersection of media and theatre studies

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Super Sleuth (STEM)– 9xSS

Description

This elective encourages students to use their problem solving skills and deductive knowledge to solve interesting, engaging, and relevant problems. Each week students will be engaged with different facets of philosophy and problem solving, including forensic and crime scene analysis, the nature of perception, unsolved mysteries of the universe, and logic puzzles. Students will work in groups and individually, using a wide range of media to solve, model, and discuss problems.

Assessment

This program will be assessed using the following methods:

- Students will produce solutions and accompanying reports to various problems.
- Students will be assessed on their ability to present research.

Weekly Outline

Day 1

Introduction to the idea of forensics.

Day 2

Explore the techniques of crime scene analysis.

Day 3

Crime Scene Melbourne and Melbourne cemetery research excursion.

Day 4

Excursion to Escape Room, students apply the processes involved in problem solving.

Day 5

Research and recording.

Day 6

Presentation of podcasts/short films.

Day 7

Excursion: The Amazing Race, students need to find the quickest route around the city, completing challenges along the way.

Day 8 Logic puzzle solving.

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Try A Trade - Code: 9xTR

Description

In this program students will explore various trades and will be introduced to the skills required for vocational pathways.

Assessment

This program will be assessed using the following methods:

- At the end of each day, students are required to complete a detailed journal of what they have done for that day. A detailed house plan and the journal are to be submitted at the end of the course. Students will be assessed as S or N.

Weekly Outline

Day 1

Carpentry/Construction: An introduction to the trade.

Day 2

Roofing: An introduction to the trade.

Day 3

Cladding/Painting: An introduction to the trade.

Day 4

Cladding/Painting: An introduction to the trade.

Day 5

Design: An introduction to the trade.

Day 6

Bricklaying: An introduction to the trade.

Day 7

Bricklaying: An introduction to the trade.

Day 8

Bricklaying: An introduction to the trade.

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Urban Farming and Sustainable Futures (STEM)– 9xUF

Description

This course explores the future of agriculture and horticulture in Australia in a changing climate and changing environment. In this course students will explore the future of agriculture and horticulture in the urban environment looking at how innovation, technology and design is blended with traditional methods of farming and food production, both indigenous and European, to work towards sustainable futures and food security.

Over eight weeks students will be engaged in both on campus and off campus activities using the Waterford Garden as the basis for practical applications of student learning. Students will be engaged in hands-on agricultural and horticultural practices demonstrating the knowledge and understanding of animal husbandry, plant health and nutrition, seasonality of production and plant environmental suitability that has been gained through their investigations.

Assessment

This program will be assessed using the following methods:

- Fieldwork report and practical reports
- Research project

Weekly Outline

Day 1

Students are introduced to the concept of ecological services and how the provisioning, regulating, supporting and cultural services of the environment are impacted by different methods of agriculture from those of traditional systems to industrial systems of farming. Students will be exploring these practices in hands-on activities in the Waterford Garden.

Day 2

Students explore the concept of urban farming as a way of creating sustainable cities and providing food security. Students will be exploring how urban farming practices can be applied in the Waterford Garden.

Day 3

Fieldwork – students explore sustainable farming practices at CERES and complete project work based on their research and observations.

Day 4

Fieldwork – students explore urban farming projects and community gardens in Melbourne and complete project work based on their research and observations.

Day 5

Students explore the example of the Waterford Garden as a sustainable and integrated system of agriculture.

Day 6

Fieldwork – students do fieldwork on indigenous food plants at the Royal Botanic Gardens and explore their role in sustainable agricultural practices.

Day 7

Application of knowledge and practices learned from fieldwork and research to the Waterford Garden.

Day 8

Application of knowledge and practices learned from fieldwork and research to the Waterford Garden.