

# Year 10 Electives Handbook 2021



**MAZENOD  
COLLEGE**

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In Year 10, all students study English, Maths, Science, Humanities and Social Sciences, Religious Education and Health & Physical Education as part of their curriculum. In conjunction with these compulsory subjects, students are able to choose elective subjects that provide opportunities for them to develop their talents in a wide variety of areas.

When choosing electives for Year 10, please bear in mind that some of these are important because of their academic content and prerequisite knowledge and skills for Year 11.

When selecting electives it is also important to take into account student's ability, skills and interests.

## ELECTIVE SELECTION INFORMATION

The selection process for elective subjects is completed online.

Parents will receive an email providing the details required for making their selection.

The following pages outline the elective subjects available along with a brief description to assist with understanding what each course involves.

### Students will need to select a total of 4 units.

You can use the following page to ensure you meet these requirements.



# Electives 2021

**Note: Some units are whole-year courses and count as two unit to your total selection of 4 units.**

## Design & Technology Units

No. of Units	Name	No. of Units	Name
1	<b>Design</b> (1 unit course)	1	<b>Metalwork</b> (1 unit course)
2	<b>Design</b> (2 unit course)	2	<b>Metalwork</b> (2 unit course)
1	<b>Electrical Engineering</b>	1	<b>Woodwork</b> (1 unit course)
1	<b>Robotic Engineering</b>	2	<b>Woodwork</b> (2 unit course)

## Digital Technologies Units

No. of Units	Name	No. of Units	Name
1	<b>Programming</b>	1	<b>AI and Machine Learning</b>
1	<b>Game Development</b>	1	<b>Using Adobe Software Skills</b>

## Visual Arts Units

No. of Units	Name	No. of Units	Name
1	Visual Art: <b>Art on Trend</b>	1	Media: <b>Imagineering</b>
1	Visual Art: <b>Visual Arts Careers</b>	1	Media: <b>Ready or Not</b>

## Performing Arts Units

No. of Units	Name	No. of Units	Name
1	Drama: <b>Australian Theatre</b>	1	Music: <b>All Blues</b>
1	Drama: <b>World Drama</b>	1	Music: <b>MixMaster</b>

## Health & Physical Education Units

No. of Units	Name	No. of Units	Name
1	<b>Outdoor Education</b>	1	<b>Sport Science</b> (1 unit course)
1	<b>Specialised Physical Education</b>	2	<b>Sport Science</b> (2 unit course)

## Industry & Enterprise Units

No. of Units	Name	No. of Units	Name
2	<b>Industry &amp; Enterprise Program</b>	2	

## Commerce Units

No. of Units	Name	No. of Units	Name
1	Commerce: <b>Business Management and Enterprise</b>	1	Commerce: <b>Personal Finance for Young Adults</b>

**Below are some samples of elective combinations you might choose.**

Design & Technology
Digital Technologies
Visual Arts
Performing Arts
Health & Physical Ed.
Industry & Enterprise
Commerce

	Semester 1	Semester 2
<b>1</b> Four single unit electives	<b>Media</b> (1 unit course) <b>Metalwork</b> (1 unit course)	<b>All Blues</b> <b>Programming</b>
<b>2</b> One 2-unit elective and two single unit electives	<b>Electronic Engineering</b> (1 unit course)	<b>Metalwork</b> (2 unit course) <b>AI and Machine Learning</b>
<b>3</b> Two 2-unit electives		<b>Woodwork</b> (2 unit course) <b>Sport Science</b> (2 unit course)

# The Arts



## Visual Art Art on Trend

Come and learn what is 'hip' and on 'trend' in the visual arts. Work digitally with photography and animation to be the next popular artist on Instagram. Inspired by Urban Art, students will produce spray painted artworks and fashion items whilst working with contemporary media in both the 2-dimensional and 3 dimensional realms. You will discover what Art is being produced in places like New York and LA whilst encouraging self-expression and learning new and popular ways of creating your own work.

## Visual Art Visual Arts Careers

Working with professional artists in the fields of Fashion, Graphics, Illustration, Digital Media, Public Art and Art Commissions join this class to learn what it is like to work and earn a living as an artist. Simply as a hobby or something more substantial the scope of working in the visual arts is expansive and both financially rewarding and personally fulfilling. Students will look at self-promotion, intellectual property and the business of sustainability in the visual arts and when you are famous don't forget about your art teacher.

## Media Ready or Not

Are you a fan of jump scares and whodunits? Does the idea of solving a mystery keep you on the edge of your seat? Then this unit is for you. Ready or Not will give you opportunities to explore the Suspense Genre through scene analysis before working in a production team to create your own Suspense short film. We will also step into the role of an investigative journalist, work to uncover clues to a murder mystery and learn how to avoid a lawsuit before producing your own crime podcast. If you like deconstructing genre, select Imagineering to consider the world of Disney and virtual gaming.

## Media Imagineering

Ever wondered by Mario always had to rescue Princess Peach? Or why the videogame community can be so toxic? Imagineering explores how just using your imagination can change the world. We will unpack the way video games and Disney have been used to shape and challenge the minds of young people like yourselves. We will be viewing and discussing all things Disney and using the PS4 Dreams program to explore how video games are not only used for entertainment but to mould the way we see the world. Paired with Ready or Not, you'll be an expert in all thing Media.

## Drama Australian Theatre

"We as a country have many stories that we need to tell"- Andrew Bovell (Australian Playwright).

When we watch an Australian play, we see a mirror reflecting our past, present and future- something that can help us learn and grow. Throughout this course, you will study Australian theatre through improvisation, devised performance and production roles, as we investigate how we are represented on stage, and the stories we want told about us in the future. This course is strongly advised for students wishing to study Drama in Year 11 and 12, and is complimentary to World Drama.

## Drama World Theatre

Be a part of the journey as we investigate World Drama throughout the ages exploring styles such as Absurdist and Epic Theatre, Theatre of Cruelty and Poor Theatre. This unit will investigate style through performance, production and improvised play, and develop your own individual sense of artistry as a contemporary practitioner. This course is strongly advised for students wishing to study Drama in Year 11 and 12, and is complimentary to Australian Theatre.

## Music MixMaster

You've tried Mixcraft, now check out what the pros are using! Ableton Live software is the choice of many of today's pro DJs, producers and recording artists. This course will guide you through mixing, composing and remixing with Ableton. You will learn to play keyboards, drums, synthesizers and launchpads. Sampling your own sounds and creating tracks for live performance will help take your creativity from your bedroom to the stage. You will also form groups and utilise our state of the art studio facilities to produce recordings you will be proud of. This unit will suit beginners and experienced musicians alike and is best paired with "All Blues" as a gateway to Contemporary Music in Year 11.

## Music All Blues

Improvisation, swing rhythms and blues chord progressions are the foundation of contemporary music forms such as R&B, Rock 'n' Roll, Hip Hop and much more. Understanding the Blues is vital to understanding why today's music is the way it is. This course examines the unique circumstances that led to the birth of the blues in the United States around the turn of the 20th Century. Through performance and analysis, students will explore the 12 bar blues form in all of its variances and examine how music today is influenced by its lyrics, chords and rhythms. Students will also develop confidence of expression through improvisation, live performance and recording. They will also utilise keyboards, band instruments, and technology such as Mixcraft and Ableton Live to produce their own, modern take on original blues and classics. This course is best paired with "MixMaster 2.0" as a gateway to Contemporary Music in Year 11



# Digital Technologies

## Digital Technologies Programming

This course explores computer science by covering topics such as programming, physical computing, HTML/CSS, and data. Students engage with Computer Science as a medium for creativity, communication, problem solving, and fun. The course inspires students as they build their own websites, apps and games developing essential computational thinking skills and advanced computing knowledge. This unit is assessable to student who have not done programming in Year 9.

## Digital Technologies AI and Machine Learning

Machine Learning and Artificial Intelligence is an exciting area of technology and as we see more self-driving cars, robots and similar technologies, we need to understand how it works and how we can make it work for us. This unit will explore what Machine Learning and Artificial Intelligence are, what it is used for and we will work to develop our own intelligence to help solve every day or complex problems. This unit is assessable to student who have not done programming in Year 9.

## Digital Technologies Game Development

This unit will deepen students understanding of programming, design and imagination as they move beyond consumers of Computer Games and into creators of computer games. This course will challenge students to implement Computer Science concepts and elements from other learning areas to create enjoyable, functional games using the Godot Software Development kit and other related software. This unit is assessable to student who have not done Game Programming in Year 9.



## Digital Technologies Using Adobe Software Skills

The Advanced Adobe Software Skills course leads directly to a variety of ATAR pathway courses in Year 11 and 12, including Design, Visual arts, and Applied Information Technology. Whether you want to be a Designer or are just interested in developing your software skills, this course is recommended for you. It offers a practical approach to using the Adobe CC software as it takes students through the project management process using a variety of resources including Photoshop, Adobe Illustrator, InDesign, Dreamweaver and Adobe Animate. Students will develop an understanding of the fundamentals of design to create diagrams, wireframing, mockups and prototypes of app, web and gaming interfaces.

# Humanities & Social Sciences

## Commerce Business Management & Enterprise

The course aims to provide a detailed study of starting, owning and operating a small business. Students are challenged to become entrepreneurs and to use technology to create innovative business solutions. Topics include: Ethics, Investment, Commercial Law, Marketing, Product/Service Research and Development, Introduction to Accounting, Financial Modelling, Management Skills and Decision Making. Students prepare a comprehensive business plan including marketing and financial plans. They should become highly proficient in Excel. Competitions include CPA Plan Your Own Business and ASX Share Market Game. This unit will assist students who intend to pursue a career in Finance, Economics or achieve a trade and/or operate their own business.

## Commerce Personal Finance for Young Adults

This Unit is an in-depth study of personal finance for young adults. Activities include: Buying a Car assignment, Insurance, Budgeting, Banking, operating a Market stall, Share Markets, Taxation, Income sources, Saving, Investing and Credit. Books investigated include: 'The Four Pillars of Investing: Lessons for Building a Winning Portfolio'. 'Generation Earn: The Young Professionals Guide to Spending, Investing, and Giving Back'. Students will experience being an entrepreneur working in a small team, play the Visa Financial Football World Class Game and the ASX Schools Share Market Game.



# Design & Technology

## Design (1 or 2 unit course)

### Design

This course is designed to further expand the knowledge and skills learned in Years 8 and 9. Students revisit Computer Aided Design through a number of different software applications such as Autodesk Inventor, ArchiCAD, and 2D Design to design their own products and design solutions. Students will then test their designs through manufacture by making use of 3D printers, 3-D Modelling and VR software, and Laser Cutters. Emphasis is placed on the technical correctness of drawings together with the overall visual impact as a graphic communication of a solution to a drawing problem. ArchiCAD work will be based around a residential design with specific requirements and Inventor work will be creating an object for a client with a specific need.

Emphasis is placed on the technical correctness of drawings together with the overall visual impact as a graphic communication of a solution to a drawing problem.

## Engineering

### Electronic Engineering

The content and assessment of this course is divided between theory and practical work and will build on skills learnt in the Yr. 9 course, however no prerequisites are required. Theory in the course includes electrical safety, basic electronic principles, understanding and recognition of components, calculations in resistance, capacitance and simple circuit laws. Practical work involves the construction of integrated circuitry on manufactured printed circuit boards. Students manufacture an extensive customized Bluetooth compatible music centre.

### Engineering Robotic Engineering

The content and assessment of this course is divided between theory and practical work and will build on skills learnt in the Yr. 9 course, however no prerequisites are required. Students will investigate needs, opportunities and problems that are defined in a design brief. They devise a solution that considers factors such as function, environment, materials, components and parts. As part of this process students will be introduced to elements of design and the use of Computer Aided Drafting (CAD) programs. Practical work involves the construction of bread board circuitry using Arduino Interfaces. Students will then program electronic and robotic devices to perform specific functions using these resources. Robots may include but not restricted to, robotic vacuum cleaners, robotic vehicles, robotic arms, robotic boom gates for model railways, traffic light junctions. These will all realistically emulate real life situations.



## Metalwork (1 or 2 unit course)

### Metalwork

This course is designed to encourage students to expand their knowledge of metalworking practices and to extend them to develop and construct projects. The course also expands their knowledge of machine tools and specialised metalworking equipment as well as developing an understanding of plans and working drawings.

Students will be asked to solve a design problem in which they will need to come up with their own solution. In doing so the students will learn the relevant design processes needed as well as how to communicate their ideas through the use of Free Hand Sketching and Computer Aided Drafting. Throughout the course the students are introduced to a range of machines and tools and safe working practices are strongly promoted. The course will provide the solid foundation vital for those students who are looking to take on Certificate II in Engineering Pathways (metals) or General Materials Design & Technology (metals) in Years 11 and 12. Safety will underpin all teaching and learning experiences.



## Woodwork Unit (1 or 2 unit course)

### Woodwork

This course is designed to encourage students to expand their knowledge of woodworking practices and to extend them to develop and construct projects. The course also extends student's knowledge of various machines and specialised woodworking equipment as well as developing an understanding of plans and working drawings.

A focus of this subject will be product design. Students will be asked to solve a design problem in which they will need to come up with their own solution. In doing so the students will learn the relevant design processes needed as well as how to communicate their ideas through the use of Free Hand Sketching and Computer Aided Drafting.

Throughout the course the students are introduced to a range of hand tools and safe working practices are strongly promoted.

Students should be aware that this course forms part of the foundation for the Materials Design and Technology (General) Woodwork course

and also the Certificate II in Furnishings (pathways) course in Year 11.

It is strongly recommended that any student who wishes to study the above subjects in Year 11 should select a Woodwork unit in Year 10.



# Industry & Enterprise Program

## Industry & Enterprise

The Industry and Enterprise Program is a VET program designed to assist students with aspirations for a career in the trades and provide a transition through school into further education and training.

This program involves a modified curriculum in English, Science and Humanities & Social Sciences to integrate the skills and learning necessary for the students to take on the next phase of their learning. The I&E program prepares students for both a General pathway in Senior School as well as for the workplace.

Students choosing to be part of this program need to select "Industry & Enterprise Program" as their first option for Year 10.

As part of the Industry and Enterprise Program, students will be doing Woodwork, Metalwork and Design, along with other construction activities. This means that all the elective choices for Year 10 come from the Industry & Enterprise Program. Additionally, students in the program will do a range of short courses to give them further qualifications for their future studies and employment.

Students who join this program will be given opportunities to engage in workplace learning throughout the year. This allows students to gain a variety of experiences in the workplace to support their ongoing engagement in their learning.

Entry to the program is by invitation and students will be expected to meet the high standards of this course throughout the year.

For more information about the Industry & Enterprise Programme, contact [Mr Angelo Vallis](#) (Industry & Enterprise Coordinator).



# Health & Physical Education

## Sport Science (1 or 2 unit course)

Sports Science provides students with an opportunity to develop their practical skills and strategies, and to explore these in contexts similar to those studied in Years 11 and 12 Physical Education Studies.

The practical component links the human body systems to the sporting movements required in sports such as badminton, floorball, softball and other sports not usually covered in physical education classes. Practical assessment is based on skill development, execution and technique in these sports.

Students examine the functional anatomy of the human body. Structure and function of the skeletal and muscular systems are studied to explain how the human body creates movement. They also investigate recent developments in Biomechanics, Sports Psychology and Motor Learning & Coaching, and apply these in a practical context.

## Specialised Physical Education

This practical course is offered to students who enjoy HPE and want to further develop their skills and strategies. A variety of sports that are not covered in physical education classes are selected, such as flag gridiron, lacrosse and badminton. Students are given the opportunity to improve their skills and understanding of the methods to improve performance. Students ability to transfer tactical knowledge and strategies from one context to the next is a focus. Practical performance in the selected sport forms the basis for student assessment in this course.



## Outdoor Education

Year 10 Outdoor Education aims to educate students about environmental awareness and risk management. This course will allow students to explore topics such as navigation, orienteering, bush survival, first aid, minimal impact, hiking, camping, fishing and mountain biking.

Outdoor Education is about learning life skills which are facilitated in the outdoors and the learning objectives of this course include: developing teamwork skills, decision making and problem solving skills, improving communication, instilling leadership qualities, and fostering initiative and resourcefulness. The course culminates with a 2-3 day expedition where the skills and knowledge learned in the course are put into practice.

Please note there is a limited number of places offered in Outdoor Education for logistical and safety reasons. Selection criteria will be based on suitability to the subject and recommendations from classroom teachers and the Head of the Health & Physical Education Department.



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