Year 10 Electives Handbook 2024

MAZENOD
COLLEGE

In Year 10

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 students' 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.

Use the following booklet and the Mazenod MyPath webpages under the "Our Learning" section of the College website to ensure you meet these requirements.

Visual Arts

Visual Art 2D: Spray-paint, Drawing & Photography

Through creativity, self-expression, ond critical thinking. Visual Art drives personal growth and enhances our perception of the world.

In Visual Arts 2D students focus on art making using spray paint, graffiti techniques, photography, wet and dry mediums, such as pencil, charcoal, pastels, conte, watercolour, acrylic paint, ink, oil paint, etching and printing. Students will look at a range of artists, including murals and attend excursions to local art galleries.

This subject is very practical, students create artworks every term by exploring mediums and building skills. As students critically analyse artists, art styles and art movements, students build a strong understanding on how to express themselves in aesthetic ways.

Course Content:
During the course students will learn the process of designing to create artworks. Students will use a variety of Visual Art Mediums and investigate contemporary artists.

Pre-requisites:
None - highly desirable for upper school visual art courses.

Visual Art 3D: Street Art, Mixed Media & 3D Modelling

Through creativity, self-expression, and critical thinking. Visua Art drives personal growth and enhances our perception of the world.

In Visual Arts 3D students build skills in mediums and materials of a physical nature such as clay, textiles, wire, plaster, moulding, and other sculptural materials.

This subject is very practical, students produce artworks each term. Students will look at a range of artists, including murals and attend excursions to local art galleries. Through viewing and analysing artists, structures, art styles and art movements, students build an awareness of how to communicate ideas and messages, form and function through aesthetic means.

Course Content:
During the course students will learn the process of designing to create their chosen artworks. Students will use a variety of Visual Art Mediums and investigate contemporary artists.

Pre-requisites:
None - highly desirable for upper school visual art courses.

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.

Please Note:

These units can be taken per Semester on their own, combined or as a unit each Semester to take the subject for a year long course. For example, you could take 2D in Semester 1 or 3D in Semester 2 or take 2D for both Semesters.

Performing Arts

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. 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 complementary 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 complementary 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 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 "The 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 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" as a gateway to Contemporary Music in Year 11.

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 accessible to students who have not done programming in Year 9.

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 they work and how we can make AI and Machine Learning work for us.

This unit will explore what Machine Learning and Artificial Intelligence are, and what it is used for. We will work to develop our own AI to help solve everyday or complex problems.

This unit is accessible to students who have not done programming in Year 9.

Game Development

This unit will deepen students understanding of programming, design and imagination as they move beyond consumers of computer games 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 accessible to students who have not done Game Programming in Year 9.

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.

Commerce

Business Management & Enterprise

Shark Tank

The course aims to give students an insight into the world of entrepreneurship.

Students will engage with an educational program designed to immerse young people into "the doing" of entrepreneurship and innovation. Innovation and entrepreneurship are increasingly considered key drivers to solve real-world problems.

The knowledge, skill, and application activities within the Shark Tank program incorporate core concepts of creativity, innovation, critical thinking, teamwork, and entrepreneurial thinking skills into developing our entrepreneurial leaders of tomorrow.

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' and '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 and Technology

Design: Designing for the Future

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 AutodeskInventor, 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, 3D 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 about creating an object for a client with a specific need.

Students will complete the following projects/tasks:

3D Printed Toy (Inventor)
Apartment Design (ArchiCAD Software)
Laser Cut 3D Animal (2D Design Software)

Design: Contemporary Design

Emphasis is placed on the technical correctness of drawings together with the overall visual impact as a graphic communication of a solution of a drawing problem. Students will complete the following projects/tasks:

3D Sculpture (Inventor Software)
Old D&T Building Re-purpose (ArchiCAD Software)
Logo Design (2D Design Software)

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.

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 breadboard circuitry using Arduino Interfaces. Students will then program electronic and robotic devices to perform specific functions using these resources.

Robots may include but are not restricted to, robotic vacuum cleaners, robotic vehicles, robotic arms, robotic boom gates for model railways and traffic light junctions. These will all realistically emulate real life situations.

Design and Technology

Metalwork - Unit 1

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, 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. Students will complete the following projects/tasks:

Sheetmetal Toolbox
Welding Exercises
Folding Shovel
Metal Wall Art Design and Production

Metalwork - Unit 2

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. Students will complete the following projects/tasks:

Welding Exercises
Metal Table
Windmill Design and Production

Woodwork - Unit 1

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, 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. Students will complete the following projects/tasks:

Mirror Design
Mirror Production
Folding Stool

Woodwork - Unit 2

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. Students will complete the following projects/tasks:

Tray Table
Child's Toy Design
Child's Toy Production

Health and Physical Education

Outdoor Education

Year 10 Outdoor Education allows students to develop their awareness of the environment and a deeper relationship with nature. In practical lessons, students work in areas such as mountain biking, camping, minimum impact, navigation and risk assessment.

Outdoor Education also allows students to enhance personal and social skills and opportunities to learn how to overcome adversity and increase resilience within outdoor environments. There is a focus on developing teamwork skills and provide opportunities to improve decision making, problem solving skills, improving communication whilst fostering initiative and resourcefulness.

The course culminates with a 2 day expedition where the skills and knowledge learned in the course are put into practice.

Please note there are a limited number of places offered in Outdoor Education for legislative, logistical and safety reasons.

Specialised Physical Education

This course is offered to students who enjoy Physical Education and want to further develop their skills and strategies.

A variety of sports that are not covered in regular Physical Education classes are offered, such as flag grid iron, lacrosse, floorball, softball and badminton.

Students are given the opportunity to improve their skills and understanding of the methods to improve performance. Their ability to transfer tactics and strategies from one sport to the next and learning and executing skills, are the main aims of the course.

Practical performance in the selected sports forms the basis for student assessment.

Specialised Physical Education comprises of practical lessons only and suits students who enjoy being active and participating in sport.
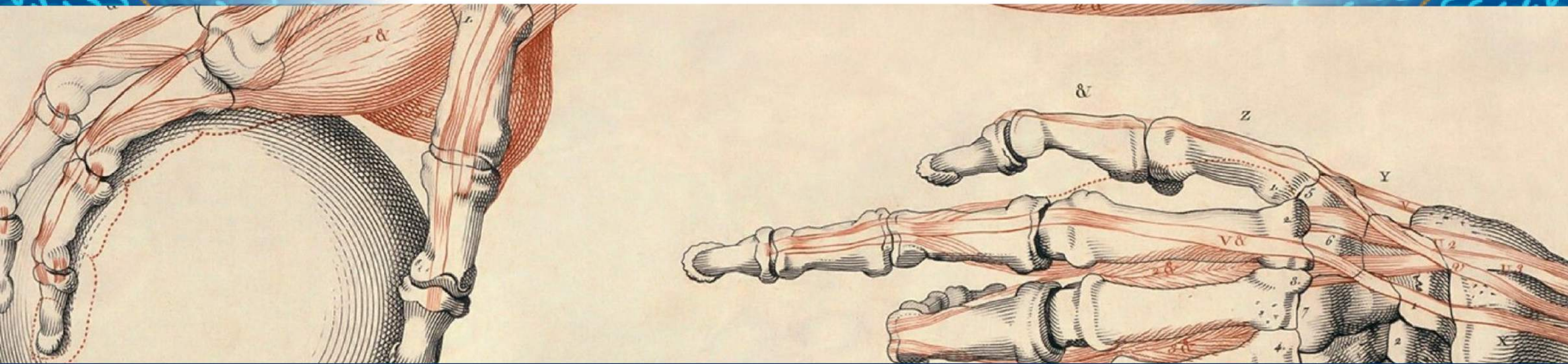
Sport Science - Unit 1

Students studying Sport Science will have 6 lessons per cycle, with 3-4 practical lessons and 2-3 classroom lessons per cycle.

Sport Science Unit 1 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 Net & Wall sports such as badminton and volleyball.

Practical assessment is based on skill development, skill execution and game strategy 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 for physical activity.

In the topic of Exercise Physiology, students investigate how the body changes during exercise and ways to improve performance through training body systems.

Sport Science - Unit 2

Students studying Sport Science will have 6 lessons per cycle, with 3-4 practical lessons and 2-3 classroom lessons per cycle.

Sport Science Unit 2 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 Invasion & Evasion sports such as floorball & lacrosse.

Practical assessment is based on skill development, skill execution and game strategy in these sports.

Students explore recent developments in Biomechanics & Sports Psychology. They also study how sporting skills are taught and practised, and how coaches use different methods to develop their athletes.