



**Lynwood**

**Year 9 - 2021  
Information and Curriculum Handbook**

*Learners Today, Leaders Tomorrow*



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## Message from our Principal

Lynwood Senior High School is a comprehensive and inclusive school catering for a rich diversity of students from Years 7 - 12. With a school Vision statement of “Embracing Diversity, Celebrating Excellence, Together Creating Sustainable Futures”, Lynwood Senior High School proudly embraces its diverse multi-cultural community. A stimulating, challenging and values-rich environment is provided where students are strongly supported by community, education, business and industry partners to develop the skills and resilience required to overcome the inevitable challenges that will come their way in a complex and changing world.

As a highly aspirational school, we are committed to building the social capital of students and staff to enable their engagement and success. As evidence of this, in 2018 Lynwood Senior High School was the winner of the prestigious WA Education Awards Secondary School of the Year.

Lynwood’s diversity and respect for difference is reflected in every facet of school life. All of our academic programs are complemented by a strong focus on social and emotional development, enabling our students to become positive and resilient, confident and enthusiastic about their futures and the contribution they can make to our community and more globally. Lynwood Senior High School offers students the opportunity to find a pathway that meets their needs, that stimulates them to achieve their academic goals and enables access to a range of options upon completion of their secondary schooling.

This booklet is designed to inform students about the courses available at our school and to help them understand the expectations of each course. Please see the Parent and Student Information Handbook for information re school policy and procedures.

I hope that students, their parents and guardians find these publications useful and enjoy focusing positively and enthusiastically on the opportunities being provided at our school. If you have any further questions do not hesitate to contact the appropriate staff member or our front office staff who will help you find the right person to talk to.

For further information please refer to our website: [www.lynwood.wa.edu.au](http://www.lynwood.wa.edu.au)

**Geraldine Hardy**  
Principal

### Visitors to our School

We are always keen to have parents and guardians visit our school. To ensure the safety of your child and other students, we ask all visitors to firstly report to the front office reception, sign in using our iPad sign-in system (someone will help you if unsure) and be given a visitor’s badge. By following this process you can avoid the circumstance of being asked by staff to state why you are on the property.

***If you would like to meet with a teacher, please telephone first so we can organise a mutually convenient appointment.***

### Course Costs

***Please note that the course costs stated on the following pages are given as a guide only. These costs are based on the 2020 pricing structures and are subject to change in 2021.***

# Curriculum Information

## Schooling in Western Australia

All schools in Western Australia will be implementing the Australian Curriculum over the next three years. English, Mathematics, Science and History are the first learning areas to do this and other learning areas will continue to utilise the Curriculum Framework in the interim. The Australian Curriculum sets out what students should know, understand and value whilst preparing them as lifelong learners in the 21<sup>st</sup> Century.

The Australian Curriculum has seven General Capabilities and three priorities, which are embedded into the curriculum of each learning area. The Australian Curriculum also sets minimum standards for students to achieve and hopefully surpass in each learning area. The General Capabilities and Priorities are listed below:

### General Capabilities

1. Literacy
2. Numeracy
3. ICT Capability
4. Critical and Creative Thinking
5. Personal and Social Development
6. Ethical Behaviour
7. Intercultural Understanding

### Cross-Curricular Priorities

1. Aboriginal and Torres Strait Islander histories and cultures
2. Asia and Australia's Engagement with Asia
3. Sustainability

### Course Overview

The curriculum at Lynwood Senior High School covers eight learning areas and aligns the lower school curriculum to the senior school curriculum as set out by the School Curriculum and Standards Authority.

Year 9 student courses generally cover the eight learning areas:

- The Arts
- English or English as an Additional Language (EAL/D)
- Health and Physical Education
- Languages other than English – Chinese
- Mathematics
- Science
- Humanities and Social Sciences (Business and Careers Education)
- Technologies and Enterprise (Design and Technology, Digital Technologies)

### Elective Courses

Choice is limited in Year 9 and progressively increases into Year 10.

All students study **compulsory** courses in English, Mathematics, Science, Humanities and Social Science, Physical Education (including the Academy of Soccer and Elite Skills), Careers and Health.

In addition, students can select **FIVE** additional courses from The Arts, Health and Physical Education, LOTE (Chinese) and Technologies.

Technologies is studied through three contexts: Digital Technology, Design and Technology and Home Economics.



# The ARTS

The Arts learning area comprises five subjects: Dance, Drama, Media Arts, Music and Visual Arts.

The Arts curriculum is written on the basis that all students will study at least two Arts subjects from Pre-primary to the end of Year 8. It is a requirement that students study a performance subject and a visual subject. Each of the five Arts subjects are organised into two interrelated strands: *Making and Responding*.

## **Making**

Making in each Arts subject engages students' cognition, imagination, senses and emotions in conceptual and practical ways and involves thinking kinesthetically, critically and creatively. Students develop knowledge and skills to plan, produce, present, design and perform in each arts subject independently and collaboratively. Students work from an idea, an intention, particular resources, an imaginative impulse, or an external stimulus. A part of making involves students considering their work in the Arts from a range of points of view, including that of the audience. Students reflect on the development and completion of making in the Arts.

## **Responding**

Responding in each Arts subject involves students reflecting, analysing, interpreting and evaluating in the Arts. Students learn to appreciate and investigate the Arts through contextual study. Learning through making is interrelated with, and dependent upon, responding. Students learn by reflecting on their making and responding to the making of others. The points of view students hold, shift according to different experiences in the Arts. Students consider the Arts' relationships with audiences. They reflect on their own experiences as audience members and begin to understand how the Arts represent ideas through expression, symbolic communication and cultural traditions and rituals. Students think about how audiences receive, debate and interpret the meanings of the Arts.

## **CONTEXT: ART AND DESIGN**

### **VISUAL ART**

**CODE 9VART \$25.00**

This course is constructed to allow students to explore traditional methods of investigating through a range of art media and drawing approaches. The students will have the opportunity to be exposed to a range of Art methods including Drawing and Printmaking, Graphics and Design, and Painting and Sculpture. Students will explore themes from our environment, still life and social issues as well as learning to use the Art Design language to evaluate their own work and the works of others both past and present.

## **CONTEXT: DRAMA/DANCE**

### **DRAMA/DANCE**

**CODE 9DRAMA \$25.00**

In Year 9 students will use drama for exploring and expressing their individual and social identities. They will learn to use symbols, mood, irony and multiple subtexts in making drama. They will experiment with innovative and hybrid forms and performance styles. They will practise directing and production tasks and responsibilities, and refine and practise for their performances. Students will explore and respond to more complex theatre forms and styles from a range of traditions and movements and begin to develop and articulate a personal framework for critical study. Some dance concepts will also be merged into the course to encourage confidence, collaboration and performance skills in the students.

## **CONTEXT: MEDIA STUDIES**

### **MEDIA STUDIES**

**CODE 9MEDIA \$25.00**

Our society is saturated by the Media. "But what is Media?" The Media is any form of communication and everything communicates something to the viewer. In this course students are introduced to the codes and conventions of Media. Students are taught how to deconstruct media forms by analysing the selective processes used to create intended meanings through Film, Advertising, Radio Productions, Magazine Layouts, Web Designs, Comic Strips, Cartoons, Videogames, Soundscapes, Photo manipulation and Typography. Students will construct their own Media Production from their understanding of the selective processes.

## **CONTEXT: MUSIC**

The Music Programme consists of class music, weekly instrumental lessons and involvement in an ensemble. Students are expected to participate in all three areas.

### **CLASSROOM MUSIC**

**CODE 9MUS1/2 \$25.00**

This course is recommended for students who have previously studied Classroom Music in Year 7 and 8 or learn an instrument privately and have a strong interest in Music. It involves students creating, performing and responding to a variety of music from various cultures and genres. Students will use and manipulate the elements of music to achieve these processes. Students involved in the school's Music Program **must** select these two courses.

### **INSTRUMENTAL & ENSEMBLE MUSIC**

**CODE 9SIM \$22.00**

Students who are currently involved in the school's Music program will continue their Instrumental Music lessons with the visiting Instrumental Music School Services teacher and continue to be involved in the school's Concert Band(s).

The lessons and rehearsals are taken above the normal student workload. Students enrolled in this course are expected to attend and participate in all the musical activities and performances organised such as the annual Art Showcase, and various other performances and excursions.

The instrumental and ensemble music course can **only** be taken in conjunction with the classroom music course 9MUS1/2.

# ENGLISH

## ENGLISH

CODE 9ENG

\$25.00

In the English learning area, students learn about the English language: how it works and how to use it effectively. The study of English plays a vital role in the development of students' literacy, enhances their learning in all areas of the curriculum and provides them with the communication skills and critical understanding of language necessary for active participation in society.

Students complete a course that focuses on four aspects of learning: i.e. Speaking/Listening, Reading, Writing and Viewing. This approach to learning will work in conjunction with the West Australian Curriculum inter-related strands of Language, Literacy and Literature. Students are required to demonstrate some level of competence in the Major Learning Outcomes listed below, and these results will be determined at the point of exit of each school year.

### MAJOR ENGLISH LEARNING OUTCOMES

#### 1. Understanding Language

Students understand that the way language is used varies according to context.

#### 2. Attitudes, Values and Beliefs

Students understand that language has an important effect on the ways in which they view themselves and the world in which they live.

#### 3. Conventions

Students use the conventions of Standard Australian English with understanding and critical awareness.

#### 4. Processes and Strategies

Students select from a repertoire of processes and strategies when listening, viewing, reading, speaking and writing by reflecting on their understanding of the way language works.

#### 5. Listening

Students listen actively with purpose, understanding and critical awareness in a wide range of situations.

#### 6. Speaking

Students speak with purpose and effect in a wide range of contexts.

#### 7. Viewing

Students view a wide range of visual texts with purpose, understanding and critical awareness.

#### 8. Reading

Students read a wide range of texts with purpose, understanding and critical awareness.

#### 9. Writing

Students write for a range of purposes and in a range of forms using conventions appropriate to audience, purpose and context.

## **ENGLISH as AN ADDITIONAL LANGUAGE OR DIALECT**

**EAL/D**

**CODE 9EALD**

**\$25.00**

English as an Additional Language or Dialect (EAL/D) is a flexible program of instruction designed to assist culturally and linguistically diverse students whose first language is not Standard Australian English. EAL/D education is for those students who have recently arrived in Australia from a non-English speaking country or those who have recently exited from an Intensive English Centre.

The EAL/D program aims to raise the students' mastery of Standard Australian English to a level where language is no longer a barrier to learning, and students will be able to function across the curriculum in a range of contexts.

EAL/D classroom programs assist learners to develop key cultural and social understandings by writing, reading, viewing, speaking, and listening to a range of texts across common school genres. Skills are presented at increasing levels of difficulty to cater for all students.

Students in EAL/D classes are assessed in accordance with the ESL/ESD Progress Map that is aligned to the Western Australian Curriculum. The Progress Map acknowledges that EAL/D students develop Standard Australian English at varied rates.

All lower school EAL/D programs are designed to effectively prepare students for achieving the Western Australian Certificate of Education (WACE) through participation in English or English as an Additional Language or Dialect Foundation, General or ATAR units in Years 11 and 12.

# HEALTH and PHYSICAL EDUCATION

Courses in Health and Physical Education focus on the physical, emotional and social dimensions of the health of the individual.

Students plan, act and reflect in order to develop the essential knowledge and understandings, attitudes, values and skills which encourage participation in regular physical activity and support the maintenance of a healthy lifestyle.

Health and Physical Education has two integrated strands:

- Personal, social and community health
- Movement and physical activity

The two strands signify and provide a balance within the learning area of health – related and movement – related knowledge, understanding and skills.

## **PERSONAL, SOCIAL AND COMMUNITY HEALTH**

**CODE 9HE**

**\$12.00**

The personal, social and community health strand will develop student's knowledge, understanding and skills to support a positive sense of self, to effectively respond to life events. Skills and topics that are integral to this strand are:

- Getting to know you
- Interpersonal Skills
- Lifestyle Diseases
- Fitness
- Growing and Developing Healthy Positive Relationships
- Disabilities
- First Aid and emergency scenarios
- Drug Education

## **GENERAL PHYSICAL EDUCATION**

**CODE 9PE**

**\$23.00**

In movement and physical activity contexts, students will develop movement competence in a range of physical activities in a variety of contexts and environments including games and sports, outdoor and recreational activities that are performed individually and in groups.

Focuses in this area include the following activities:

- Swimming/Survival/Water polo
- Cricket
- Basketball
- Fitness/Weights
- AFL Recreational Football
- Athletics
- Gaelic Football
- Badminton

**Student requirements:** Students must wear appropriate Physical Education uniform/attire including correct footwear and are expected to participate fully in all activities.

## **ACADEMY OF ELITE SKILLS (separate classes for males and females)**

**CODE 9ESP**

**\$40.00**

The course is designed to enable students to attain advanced skills in Physical Education, generally and specifically. This may include studying a selected sport in depth, e.g. Netball and AFL Football. Programmes will cover the skills, techniques and attitudes for high level participation. Entry to this course will involve a selection process.

## **ACADEMY OF SOCCER (fees inclusive of coaching certificate)**

**CODE 9SOCC1/2**

**\$349.00**

The Academy is designed to enable students to attain excellence in Soccer. Programmes cover the skills, techniques and attitudes of high level training practices. These include nutrition, training and physiology, umpiring and coaching of Soccer. Links are developed with Club, State and National bodies. Students need to have a specific interest in the course and entry requires a selection process.

NB: Students in the Academy are reminded to also select the soccer extension course **SOCC3/SOCC4**

**OUTDOOR PURSUITS 1 (Elective)****CODE 9ODP1 \$50.00**

Please note that swimming skills are essential in this option (students *must* be able to competently swim 200m and tread water).

- Water Safety/Survival
- Kayaking
- Bush Skills

Students acquire the skills to participate safely in the above activities.

**OUTDOOR PURSUITS 2 (Elective)****CODE 9ODP2 \$50.00**

- Mountain Biking
- Ropes/Climbing

Students acquire the skills to participate safely in the above activities.

# HUMANITIES and SOCIAL SCIENCES

**HASS** **CODE 9HASS** **\$25.00**

Humanities and Social Sciences is the study of human behaviour and interaction in social, cultural, environmental, economic and political contexts. Humanities and Social Sciences has a historical and contemporary focus, from personal to global contexts, and considers opportunities and challenges for the future. In the Western Australian Curriculum, the Humanities and Social Sciences learning area comprises four subjects:

Civics and Citizenship, Economics and Business, Geography, History

By studying Humanities and Social Sciences, students will develop the ability to question; think critically, make decisions based on evidence, devise proposals for actions and communicate effectively. The Humanities and Social Sciences subjects provide students with the knowledge and skills they need to develop a broad understanding of the world in which we live and how people can participate as active and informed citizens in the 21<sup>st</sup> century.

The following units will be taught to Year 9 students:

## **Our Democratic Rights**

- The role of the political parties, and independent representatives in Australia's system of government, including the formation of governments.
- How citizens' choices are shaped at election time (e.g. public debate, media, opinion polls, advertising, interest groups, political party campaigns)
- How social media is used to influence people's understanding of issues.

## **Australia and the Global Economy**

The role of the key participants in the Australian economy, such as consumers, producers, workers and the government.

- Australia's interdependence with other economies, such as trade and tourism, trade links with partners in the Asia region, and the goods and services trade.
- The nature of innovation and how businesses seek to create and maintain a competitive advantage in a market, including the global market.
- The way the work environment is changing in contemporary Australia and the implication for current and future work.

## **Biomes and Food Security**

- The distribution and characteristics of biomes as regions with distinctive climates, soils, vegetation and productivity.
- The ways that humans in the production of food and fibre have altered some biomes (e.g. through vegetation clearance, drainage, terracing, irrigation).
- The environmental, economic and technological factors that influence crop yields in Australia and across the world (e.g. climate, soils, landforms, water resources, irrigation, accessibility, labour supply, agricultural technologies)

## **Geographies of Interconnections**

- The perceptions people have of place, and how this influences their connections to different places.
- The way transportation, and information and communication technologies are used to connect people to services, information and people in other places.
- The ways that places and people are interconnected with other places through trade in goods and services, at all scales.
- The effects of people's travel, recreational, cultural or leisure choices on places, and the implications for the future of these places.

## **The Making of the Modern World**

Overview: The important features of the modern period (1750-1918)

### **Depth Study 1: Investigating the Industrial Revolution (1750-1914)**

- The technological innovations that led to the Industrial Revolution, and other conditions that influenced the industrialisation of Britain (e.g. the agricultural revolution, access to raw materials, wealthy middle class, cheap labour, transport system, and expanding empire) and of Australia.
- The population movements and changing settlement patterns during the Industrial Revolution.

## Depth Study 2: Investigating the World War I (1914-1918)

- The causes of World War I and the reasons that men enlisted to fight in the war.
- The places where Australians fought and the nature of warfare during World War I, including the Gallipoli campaign.
- The impact of World War I, with a particular emphasis of Australia, such as the use of propaganda to influence the civilian population, the changing role of women and the conscription debate.
- The commemoration of World War I, including debates about the nature and significance of the ANZAC legend.

## CONTEXT: BUSINESS and CAREERS

The following table has been produced to assist you in your Year 9 choices. It indicates which lower school courses ensure that students have the background knowledge and skills required in Business and Careers senior school courses.

Code	Lower School Courses	Senior School Courses
9FIM	Financial Management	Accounting & Finance Business Management & Enterprise
9LAW	Law	Business Management & Enterprise
9WST	Work Studies	Career & Enterprise

### FINANCIAL MANAGEMENT (Elective)

CODE 9FIM \$14.00

Students will use the Technology Process to investigate information and systems for **Managing Money**.

Depending on student interest, students may explore topics such as:

- Banks & credit unions
- Personal budgeting
- Personal income tax
- MS Excel
- Scams
- Cards (credit, debit & smart)
- Mobile Phones
- ASX game

### LAW (Elective)

CODE 9LAW \$14.00

Students will use the Technology Process to research information and systems concerning the Law and how it affects young people. Topics may include:

#### The Law and Young People

- Legal Ages
- The Juvenile Justice System
- Arrest Procedure for Minors
- The Children's Court
- Sanctions for Minors

#### Contract Law

- What makes a contract
- Mobile Phones
- Motor Vehicles & the Law
- Licences
- Tenancy & Renting

#### Criminal Law

- Types of Crimes
- Summary offences
- Indictable offences
- Arrest Procedure
- Sentences
- Criminal Mock Trial
- Excursion to Perth Law Courts

**WORK STUDIES (Compulsory)****CODE 9WST****\$14.00**

This course investigates the skills and personal qualities associated with a range of occupations and explain the importance of teamwork and collaboration. Students plan and implement strategies to improve their learning and strengthen their individual learning skills.

Using the Technology Process students:

- Research and analyse information, organise teams, and communicate effectively using appropriate types of communication.
- Research and filter relevant career information resources, create career scenarios and identify skills to manage career transitions.

## LANGUAGES other than ENGLISH (LOTE)

In Languages students learn to **speak**, to **listen**, to **read** and to **write** short texts and simple conversation. They explore the **cultural aspects** and experiment with the language.

### Why Study Languages?

- It gets you places
- You'll meet loads of new people
- It's exciting
- You can enjoy new cultures
- You'll find out more about yourself
- It'll get you a job

"Being able to speak other languages is a skill that gets you ahead"

It's not just language skills either. Employers say they value the key skills developed by language learners. These include: communication skills, team work skills, interpersonal skills, presentation skills, problem solving skills, organisational skills and good learning strategies. Can you think of anymore?

### CHINESE (Elective)

CODE 9CHIN1/2 \$20.00

#### Prerequisite: Year 8 Chinese

Chinese is the language of nearly 1/4 of the World's Population. Speakers of Chinese not only live in China, Taiwan, and Singapore, but also spread throughout Southeast Asia, North America, and Europe. Learning Chinese is an extraordinary and agreeable experience through which you can immerse yourself in a different culture.

Unlike most languages, Chinese has a unique ideographic writing system, which provides visual comprehensibility. The grammatical structure of Chinese is not only logical, but also pragmatic, related to the particular way of Chinese thinking.

### CHINESE IN THE WORLD

The Republic of China currently boasts the fastest growing economy in the world and is widely regarded as the potentially biggest global market in the twenty-first century. Proficient speakers of Mandarin Chinese will find jobs in various fields such as business, government, international relations, information technology and translation.

# MATHEMATICS

## MATHEMATICS

CODE 9MAT

\$25.00

Learning Mathematics creates opportunities for and enriches the lives of all Australians. The Australian Curriculum Mathematics provides students with essential mathematical skills and knowledge in Number and Algebra, Measurement and Geometry, and Statistics and Probability. It develops the numeracy capabilities that all students need in their personal, work and civic life.

## CONTENT STRUCTURE

The Australian Curriculum: Mathematics is organised around the interaction of three content strands and four proficiency strands. It also assumes teachers will make use of available digital technology, including calculators in teaching and learning contexts.

## EQUIPMENT

It is vital to students' learning and their ability to participate fully that they have the equipment specified in the Booklist for Mathematics. At a minimum, students need to make sure that they have pens, pencils, ruler, protractor, exercise book and calculator with them for every Mathematics lesson. Parents can support the Mathematics teachers and their child by ensuring that this equipment is purchased for their child and regularly check the working order of it.

## YEAR 9 LEVEL DESCRIPTION

The proficiency strands *Understanding*, *Fluency*, *Problem Solving* and *Reasoning* are an integral part of mathematics content across the three content strands: **Number and Algebra**, **Measurement and Geometry**, and **Statistics and Probability**. The proficiencies reinforce the significance of working mathematically within the content and describe how the content is explored or developed. They provide the language to build in the developmental aspects of the learning of mathematics.

For students working at this year level:

*Understanding* includes describing the relationship between graphs and equations, simplifying a range of algebraic expressions and explaining the use of relative frequencies to estimate probabilities and of the trigonometric ratios for right-angle triangles.

*Fluency* includes applying the index laws to expressions with integer indices, expressing numbers in scientific notation, listing outcomes for experiments, developing familiarity with calculations involving the Cartesian plane and calculating areas of shapes and surface areas of prisms.

*Problem Solving* includes formulating, and modelling practical situations involving surface areas and volumes of right prisms, applying ratio and scale factors to similar figures, solving problems involving right-angle trigonometry, and collecting data from secondary sources to investigate an issue.

*Reasoning* includes following mathematical arguments, evaluating media reports and using statistical knowledge to clarify situations, developing strategies in investigating similarity and sketching linear graphs.

## PATHWAYS

Year 9 students will be placed in one of three pathways according to their mathematical ability level as demonstrated during the previous year. Pathway 1 is for the most mathematically able students, Pathway 2 is to assist students who require additional support, Pathway 3 is for the less mathematically able students.

# SCIENCE

## SCIENCE

CODE 9SCI

\$27.00

Science provides an empirical way of answering interesting and important questions about the biological, physical and technological world. The knowledge it produces has proved to be a reliable basis for action in our personal, social and economic lives. Science is a dynamic, collaborative and creative human endeavour arising from our desire to make sense of our world through exploring the unknown, investigating universal mysteries, making predictions and solving problems. Science aims to understand a large number of observations in terms of a much smaller number of broad principles. Science knowledge is contestable and is revised, refined and extended as new evidence arises.

The Australian Curriculum: Science has three interrelated strands: Science Understanding, Science as a Human Endeavour and Science Inquiry Skills.

### MAJOR SCIENCE LEARNING AREA OUTCOMES

- 1. The Science Inquiry Skills and Science as a Human Endeavour strands are described across a two-year band.**  
**Science Inquiry Skills** involve identifying and posing questions; planning, conducting and reflecting on investigations; processing, analysing data and interpreting evidence; and communicating findings.  
**Science as a Human Endeavour** focuses on scientific inquiry. This enables students to make clear connections between the inquiry skills that they are learning and the work of scientists and improving student's scientific literacy skills.
- 2. Biological Sciences**  
Students explore ways in which the human body as a system responds to the external environment. They also learn about how the biotic (living) and abiotic (non-living) components of ecosystems are linked together.
- 3. Chemical Sciences**  
Students are introduced to atoms which are the building blocks of matter. The atoms consist of a system of protons, electrons and neutrons and how they can change through nuclear decay. They learn matter can be re-arranged through chemical change and investigate the properties, different materials commonly used in our world.
- 4. Earth and Space Sciences**  
Students begin to apply their understanding of energy and forces to global systems such as continental movement as a result of plate tectonic movements, earthquakes and volcanic eruptions.
- 5. Physical Sciences**  
Students are introduced to the concept of the conservation of matter and begin to develop a more sophisticated view of energy transfer.

# TECHNOLOGIES

All courses within technologies aim to prepare the next generation of problem solvers, critical and creative thinkers, who have strong transferable practical skills, knowledge of contemporary and traditional technologies, and who work well both independently and in teams.

The Technologies learning area comprises two distinct subjects namely Design and Technology and Digital Technology. All courses within the two subjects provide a clear pathway into senior school courses. Students are strongly recommended to study at least one of the courses in Year 9 and in Year 10 to ensure they have the prerequisite knowledge, skills and attributes to be successful in the senior school courses they are keen on pursuing in Years 11 and 12.

## DESIGN AND TECHNOLOGY

Learning in Design and Technology builds on concepts, skills and processes developed in Years 7 and 8. Teachers will revisit, strengthen and extend them to ensure that every student is challenged and significant learning progress is made. Students will use design thinking to investigate needs and opportunities of a client or user to produce innovative and unique solutions using both traditional and contemporary technologies. Working both independently and collaboratively, they will identify and establish safety procedures that minimise risk and manage projects.

The following table has been produced to assist you in your Year 9 choices. It comprises all courses offered in the Technologies learning area as well as senior school pathways they lead into.

<b>Code</b>	<b>Lower School Courses</b>	<b>Senior School Courses</b>
9MECH	Engineering (Mechatronics)	ATAR (Mechatronics)
9WOOD	Creative and functional Woodwork	Materials Design and Technology Wood (General) Building and Construction (General)
9METAL	Creative and Functional Metalwork	Certificate II in Engineering (pathways) Building and Construction (General)
9PHOTO	Digital Photography	Certificate II Visual Arts (Photography)
9TECH	Technical Graphics	Design (General)
9FST	Food Technology	Food Science Technology (General) Certificate II in Hospitality Children Family and Community (General)
9INT	International Food	Food Science Technology (General) Certificate II in Hospitality Children Family and Community (General)
9TXT	Sewing for Teens	Children Family and Community (General)

**ENGINEERING MECHATRONICS (Elective)****CODE 9MECH \$55.00**

The Design and Technology course caters for students who have an interest in Engineering. Students will complete projects through which they will learn basic engineering principles of mechanical, electrical and electronics as well as systems and control. A major focus of this course will be on problem solving and collaboration. Investigating the properties of materials and components they will use this knowledge to produce innovative, “smart” artificial intelligence systems. Whilst no prior experience or knowledge is necessary, students with only a strong interest in the field of Engineering and who wish to pursue ATAR Engineering in Years 11 and 12 are encouraged to apply.

- Arduino based torches/buggies/mechanical aids
- First Tech Challenge

**CREATIVE AND FUNCTIONAL WOODWORK (Elective)****CODE 9WOOD \$39.00**

Students will use the technology process to develop their creative and project manufacturing skills. They will combine knowledge of the elements and principles of design, material properties and production techniques to design functional timber products based on the identified need of a client or stakeholder. This course is recommended for all students, especially those considering a career in the furniture or building and construction industry.

Projects could include the design and making of:

- Small foot stool
- Bowl - Lathe turning
- Laser cut Jewellery/boxes/bowls
- Mug tree
- Wooden box with hinged lid

**CREATIVE AND FUNCTIONAL METALWORK (Elective)****CODE 9METAL \$49.00**

Students will be involved in a wide range of problem solving activities using the technology process. During these experiences students will be introduced to basic hand and machine skills. Activities will include lathe work, sheet metal work, bench work and wrought iron work. They will investigate the properties of both metals and alloys and various techniques to manipulate them. They will also learn basic brazing, welding and silver soldering techniques to combine similar and dissimilar materials to enhance the aesthetics or functionality of their projects.

Projects could include the design and making of:

- Tool boxes
- Wrought iron displays
- Tools: Junior hacksaw, Tack hammer
- Metal and glass jewellery

**DIGITAL PHOTOGRAPHY (Elective)****CODE 9PHOTO \$29.00**

Through the Digital Photography course students will learn the basic controls of a DSLR camera with a focus on shutter speed and how its use impacts an image. They will begin to utilise Photoshop to adjust their image composition and add effects to alter and enhance their image. The main photographic task is a studio portrait where they will use studio lighting to emulate a photographic style using a model from their class. All equipment is provided for this class and no previous experience with cameras or Photoshop is required.

**TECHNICAL GRAPHICS (Elective)****CODE 9TECH \$29.00**

In the Technical Graphics course students will learn a variety of traditional and digital drawing styles which may include 2D and 3D drawings, isometric, orthogonal and rendering techniques. There will be opportunities to use the laser cutter and 3D printer to produce solutions to design problems after following a design process. Design thinking is a major focus and the students will learn and utilise several techniques to create a variety of solutions to challenges. No previous experience is required for this course.

**FOOD GENERAL (Elective)****CODE 9FST \$30.00**

Travel the world in this unit preparing and tasting staple foods from the different regions. Appreciate how other cultures prepare and cook food from the crops they grow. Develop your technology skills by using a variety of equipment and cooking methods from other cultures. Discover the fun in cooking and designing a new international fast food while working through the technology process. Develop innovative strategies and use materials to package and advertise food products. Through this unit you will have the opportunity to develop food preparation skills and promote healthy eating.

Pathway to senior school: Food Science and Technology, Certificate in Hospitality 11, Children, Family and Community.

**INTERNATIONAL FOOD (Elective)****CODE 9INT****\$46.00**

Cruising through Venice in a gondola - the smell of pasta wafting through the air; eating Fajitas while wearing your sombrero under the lazy sun; eating pancakes with bacon and maple syrup in Toronto. Experience the taste of exciting cuisines from around the world. Learn to appreciate how other cultures prepare, serve and cook a wide range of foods. Consider this 'magical' trip around the world - you won't regret it. You will explore food as a material by investigating how different cultures use ingredients/foods differently. Your technology skills will be developed using a variety of equipment and cooking methods from other cultures.

Pathway to senior school: Food Science and Technology, Certificate in Hospitality.

**SEWING FOR TEENS (Elective)****CODE 9TXT****\$22.00**

Come and learn how to sew! You will learn to use a sewing machine and have the opportunity to develop your technology and creativity skills when making simple projects such as bags, stuffed toys and clothing.

Pathway to Senior School: Children, Family and Community.

**DIGITAL TECHNOLOGIES**

We live in technological world where progress is very much dependent on the ever increasing sophistication of the devices driven by complex algorithms designed to make access to information, products and services easier. Digital Technologies courses in Year 9 are designed to appeal to analytical as well as creative individuals who would like to move from just users of technology to creators of technological solutions.

**CREATIVE DIGITAL DESIGN (Elective)****CODE 9DIGD****\$14.00**

Are you a creative being, looking for an opportunity to unleash your hidden talent? Do you enjoy using various applications and software to create digital products that you share via various social media platforms? Would you like to pursue a career as a graphic designer, or in digital media, then this is the course for you. This course focuses on developing students' creativity and enterprise skills as they develop a variety of digital graphic products, solutions and services based on the needs of a client or stakeholder, using specialised software for a range of applications. Products will range from brochures, posters, displays, forms as well as interactive 3D content using a variety of ADOBE and Microsoft software.

**CODE BREAKERS (Elective)****CODE 9CODE****\$25.00**

Are you a logical thinker? Do you believe Artificial Intelligence (AI) is going to redefine the world as we know it today? Would you like to be part of the revolution that designs AI solutions and leads humanity into the 22<sup>nd</sup> century and beyond? Would you like to emulate the entrepreneurs of the 21st century, Sundar Pichai and Mark Zuckerberg? Then this is the course for you. This course focuses on further developing students' knowledge of computational thinking to break down, analyse and develop modular approaches to developing solutions.

Students will:

- Identify the role of hardware and software in managing, controlling and securing the movement of data in digital systems
- Investigate and evaluate the principles of an "Object Oriented" programming language to design user experiences of a digital system (eg, Games, Websites, Apps, Robotics)
- Design algorithms to code interactive elements within a digital system



**Lynwood Senior High School**

***Learners Today, Leaders Tomorrow***

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