Year 10

CURRICULUM

OXLEY COLLEGE
WISDOM AND VIRTUE

OXLEY
CHRISTIAN COLLEGE

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Year 10 Art

Rationale

This course is designed to give excellent preparation for VCE Art. Therefore, students considering VCE Art would be strongly advised to take this subject. The course will enable students to gain skills and practical experience in a variety of visual representations. The course enables students to be informed in their selection of media for self-expression and to gain educated opinions about visual arts.

Course Objectives

- Explore the visual arts practices and styles as inspiration to develop a personal style, explore, express ideas, concepts and themes in art.
- Explore how artists manipulate materials, techniques, technologies and processes to develop and express their intentions in art works.
- Conceptualise, plan and design art works that express ideas and artistic intention.
- Analyse and interpret artworks to explore the different forms of expression, intentions and viewpoints of artists and how they are viewed by audiences.
- Analyse, interpret and evaluate a range of visual artworks from different cultures, historical and contemporary to explore differing viewpoints.

Content

Students are introduced to a range of art materials, techniques and skills. Emphasis is placed on further developing skills in research and art writing. Students compare the technical and stylistic features of different artworks and use this understanding to extend their technical and aesthetic skills. A Visual Diary with visual and annotated records of processes used in the development of their own art works is maintained.

Assessment

Students will be assessed by completing a variety of tasks. These will include:

- Documented evidence of the art process.
- Resolved artworks.
- Written analyses and essays.
- Unit examination.

This elective can provide a pathway to VCE Art Creative Practice.

Year 10 Careers

Rationale

Each student is an individual with God given gifts and personality which equips them for life, including work. The overall purpose of this course is to assist students with self- development, career exploration and career management.

Course Objectives

Self-Development:

- Complete, a range of activities that will enable an evaluation of abilities, interests, values, and personality and see how they will affect their future goals and opportunities in further education, training, and employment.
- Gain an understanding of strengths and identify areas for improvement, in order to build skills to achieve the goals.

Career Exploration:

- Explore a range of online resources and tools that provide career pathway options and consider how academic performance and subject selection plays a big part in future career options.
- Reflect on learning and experiences in and out of school and analyse how they may impact future choices. This includes a week of Work Experience and Job Search Day.

Career Management:

- Access career information resources to make good career pathway choices.
- Develop education and personal goals in the form of a career action plan.

Content

Students will:

- Complete a range of activities to explore their abilities, interests, values and personality as related to future goals.
- Research a career including tasks involved, work conditions, personal attributes, educational requirements, employment prospects.
- Participate in a Work Experience placement including arranging the work placement Safe @ Work preparation, and work experience journal reflection.
- Explore different career pathways and determine a suitable VCE subject program or alternate tertiary pathway.
- Prepare a Job Search Portfolio including an application letter, resume and supporting documents.
- Practice answering job interview questions and then participate in the Job Search Afternoon individual and group interview.

Assessment

Semester 1:

- “All about me” Self Development activities.
- Career Research Investigation.
- Work Experience preparation

Semester 2:

- Work Experience reflection journal and employer’s report.
- Resume and Job Application letter.
- Job Search Day interview and a career action plan

Year 10 Chinese Second Language

Rationale

This course is designed for non-native Chinese speakers and native speakers who were born in a Chinese speaking country and came to Australia at a young age. The purpose is to develop the student's communicative ability in a variety of situations through the skills of listening, speaking, reading and writing in the language. Students will learn to appreciate and respect the culture of the Chinese speaking communities.

Course Objectives

- Communication – Students will learn to communicate in the language for a range of purposes and in a range of contexts.
- Socio Cultural Understanding – Students will develop an understanding of the culture(s) linked with the language and the ability to move beyond their own culture.
- Language awareness – Students develop an understanding of the way the language works, its structure, the role it plays and its effects.

Content

The Year 10 Chinese curriculum continues the pattern of the previous years of language learning by refining the language base of the students. Various topics such as School Life, Leisure Activities, Traveling, Transport, School Subjects, and Hobbies will be taught to achieve the aims and objectives. Many activities will be used to enhance the learning of the language.

Assessment

Assessment is ongoing and includes written tasks, role plays, oral presentations, unit tests and semester examinations.

Year 10 Coaching and Advancing Fitness

Rationale

This subject caters for students interested in the areas of sport and fitness coaching, by investigating key concepts in both areas targeted at Year 10 level. It provides a foundation of knowledge and skills to better position students for success in undertaking VCE Physical Education. Alongside preparing students for further academic pursuit in this area, it provides students with knowledge and skills that they can use in their own training and coaching experiences.

Course Objectives

The main purposes of this subject are to enable students to:

- Outline key components of sport skills, which can then be used to more effectively coach for improved technique and success.
- Understand the roles of different coaching styles and key components of a coaching session.
- Have opportunity to plan and practice running a coaching session in a chosen sport skill, followed by thoughtful critique of the session.
- Recognise and appreciate the amazing bodies that God has provided us with, by understanding the role of the skeletal, joint, muscular, and cardio-respiratory systems in enabling us to succeed in physical activity.
- Have opportunity to explore how our body responds to physical activity through participation in practical sessions.

Content

This course consists of two Areas of Study.

Area of Study 1 – Coaching

Students explore classification of skills and fundamental motor skills, including breaking those skills into subroutines. Direct and Constraints-based coaching styles are covered, with students practicing using both styles themselves. Students investigate a skill of their choice and plan for coaching this skill. Weekly practical sessions are run to underpin key concepts and provide another avenue to understand the content.

Area of Study 2 – Advancing Fitness

This area focuses on the body systems (skeletal, muscular, cardiovascular and respiratory) and the way that these systems enable us to participate in physical activity and respond to exercise. Acute and chronic responses to exercise are covered. Components of fitness and energy systems are introduced, and these are linked to training principles and training methods. Regular (usually weekly) practical sessions are used to help teach and explore the content of this area of study.

Assessment

Assessment is covered in a number of different ways, including:

- Completion of class notes and activities – using the class book provided.
- Participation in practical activities – level of engagement rather than sport skill itself.
- Completion of practical activity worksheets and reflections – to demonstrate understanding of the concepts and their applications.
- Investigations / reports related to applying concepts to sport.
- Class quizzes and tests.
- End of Semester examination.

Year 10 Christian Studies

Rationale

Oxley Christian College Vision: To delight in God's love through inspired learning.
Oxley Christian College Mission: To provide an education for excellence within a Biblical Christian worldview.

Description

A key component of developing a responsive Christian worldview is to encourage spiritual, intellectual, emotional, and physical well-being; what the Hebrew Bible often refers to as 'Shalom'. In Year 10 Christian Studies, students will explore faith, meaning, wellness and relationships. The course will loosely follow Professor Seligman's 'PERMA' model for well- being while also integrating the intersection between the Christian faith and many thinking realms such as philosophy, ethics, well-being, and sociology. In doing this, students will be asked to consider a range of views and ideas and respond charitably, carefully, critically, and empathetically. This will encourage them to deliberately think through and reflect on life's big questions.

Course Objectives

- Reading, understanding, and applying Scripture.
- Practicing prayer, reflection, and response.
- Promoting service.
- Critiquing culture from a Christian perspective.
- Growing in self-awareness.
- Developing a personal framework for decision-making.
- Promoting discussion, respect, and empathy.

Content: Topics

- Topic 1 – Wellbeing and the Christian Faith
- Topic 2 – Relationships and the Christian Faith
- Topic 3 – Worldview and the Christian Faith
- Topic 4 – Ethics and the Christian Faith

Assessment

- Completion of workbook activities.
- Meaningful participation in classroom discussions.
- Creative presentations.
- Reflection and response writing.
- Research writing and presentations.
- Unit tests.
- Semester Examinations.

Year 10 Drama

Rationale

This course will lead students through a range of performance styles and contemporary drama practices.. It will enable students to develop their creative skills and communicate their experience of the world through solo and ensemble performances.

Course Objectives

Students will be able to:

- Be involved in the production and performance of dramatic pieces.
- Develop skills and techniques in the areas of acting, directing and design.
- Critically analyse performances done by themselves and others, using theatre terminology.
- Understand the historical development of drama through the ages.

Content

- Students will participate in a wide range of activities to develop their understanding of dramatic elements, expressive skills, theatrical conventions and production areas.
- Students will study the history of drama and the ways in which multiple performance styles may be manipulated within a performance.
- Students will participate in creating self-devised work and performing scripts individually and in groups.

Assessment

There will be a variety of assessments including

- Theory booklet tasks
- Dramatic element poster and presentation
- Performance style research task
- Written analysis tasks
- Ensemble development and performance
- Solo development and performance.

Year 10 English

Rationale

Students are involved in a language process which aims to develop their God given abilities to communicate effectively. This course will enrich their understanding of both literary and media texts and extend written, aural, and oral skills.

Course Objectives

Through a study of appropriate language structures, students achieve an understanding of English language usage, including effective vocabulary and punctuation. Their writing skills are expanded with an emphasis on creative writing, analytical and argumentative essays. Students develop their speaking skills, particularly formal public speaking through involvement in oral presentations, group work and prepared responses. By the end of Year 10, they are well prepared for VCE and have a complex knowledge and understanding of literary and literacy processes.

Content

The course involves the study of literary texts including short stories, plays, novels and film. Students examine media issues and are required to write a response after completing an analysis of the language and arguments used in selected persuasive texts. Ongoing activities are aimed at improving and enriching students' language skills. The course is designed to improve their overall confidence as users of English, create a love of literature and prepare them for their VCE studies.

Assessment

Students are assessed in:

- Reading and Exploring Texts
- Crafting Texts
- Effective Oral Communication
- Exploring and Analysing Argument

Students are required to complete a variety of assessments in each of these categories. Criteria based assessment is used and students are provided with criteria sheets for each formal task. There is also informal assessment in each of these areas. Some assessment items are completed in class, while others are required to be completed at home. Some assessments are handwritten, others are processed using computers. At the end of each semester, students will complete a formal examination.

Year 10 Food Studies

Rationale

The link between food and health is irrefutable. The choices that we make today will form patterns that impact our future wellbeing. Developing the ability to analyse the content of food, combined with the skills to prepare healthy meals, will enable students to have greater control over their health outcomes.

A career in the food industry provides a wide range of pathways to suit many different interests, in fields such as health, product development and the media. This course equips students with industry relevant knowledge and skills, whilst providing an insight into some of the opportunities that are available.

Course objectives

On this course, students will explore the correlation between dietary practice and health outcomes, examine the traditional lifestyle of Australia's indigenous population, study the chemical changes that food undergoes during preparation and gain an insight into the issues surrounding food waste. Students will continue developing kitchen management skills that emphasize safe and hygienic preparation of a wide range of foods. The study also provides an introduction to the course content of VCE Food and Technology.

By the end of Year 10, students:

- Critique mass production systems taking into account ethics and sustainability considerations.
- Explore the ways commercial enterprises respond to the challenges and opportunities of technological change.
- Explain the consequences of social, ethical and sustainability decisions for products.
- Investigate how digital technologies and emerging production technologies could be used to enhance food production systems.
- Determine how the causes of food spoilage can be addressed when preparing, cooking, presenting and storing food items.

Content

- **Eating Well for the Future –** examines the relationship between diet and health in order to help us become more discerning food consumers.
- **The Origins of Food –** students examine the traditional diet and lifestyle of Australia's indigenous inhabitants, explore the impact of colonisation and industrialisation on our food supply, and look into the future of food production.
- **Sustainability –** students gain an insight into the environmental and economic impact of food waste and explore minimisation strategies.

Assessment

- A research report to analyse and make judgements on the ethical, secure and sustainable production and marketing of food and fibre enterprises.
- An examination consisting of structured questions.

Year 10 Foundation Biology

Rationale

Foundation Biology enables students to investigate the processes involved in maintaining life at a molecular, cellular and systems level. In undertaking this study, students examine the importance of blood and the cardiovascular system in the delivery of the cells essential requirements for life. They study the function of various blood cells and components in the human body, and the processes in which cells interact with their immediate environment. The course also enables students to develop an understanding of the structure of the DNA molecule and examine its function in the coding for the production of proteins. Students develop an appreciation of how life is continued through cell replication and how chromosomes are the basic unit of inheritance in all living organisms.

Course Objectives

Area of Study 1 – It's all about the blood!

In this area of study, students are introduced to concept of the study of biology and the diverse way living things are classified and organised. Students examine the structure and function of a variety of cells and recognise their contribution in different tissues, organs and body systems. They specifically study the structure and function of the cardiovascular system, and the factors that lead to high blood pressure. Students investigate the role of haematopoietic stem cells and the various components and functions of blood. Different methods of substance exchange including diffusion and osmosis are explored between the cardiovascular system and various other body systems.

Area of Study 2 – It's all about your genes!

In this area of study, students are introduced to the structure and function of the DNA molecule. They learn about the genetic code and the synthesis of proteins for growth, regulation and in the maintenance of life's processes. Students examine the relationship between genes and chromosomes; recognise how mutations occur and can be passed down through generations. They investigate the phases of the cell cycle and mitosis, and the role of meiosis in the production of gametes for the continuity of life. Heredity is introduced as a study of how characteristics are passed down to future generations, and various patterns of inheritance are explored. The ABO and Rhesus blood systems are examined, as well blood linked disorders such as haemophilia and sickle cell anaemia.

Content

Topic 1 – Biology – The Study of Life

- What do Biologists study?
- The properties, classification and organisation of life.
- The discovery of cells and the development of cell theory.
- Cell size, types and cell organelles.
- Cells, tissues, organs and organ systems.

Topic 2 – The Cardiovascular System – The Pathway of Life

- The cardiovascular system function and interaction with other body systems.
- The direction of blood flow throughout the human body; the pulmonary and systemic circulation.
- The structure of the heart including its chambers, valves and blood vessels.
- The function of pacemaker cells in producing the heartbeat.
- Blood vessels including arteries, capillaries, and veins.
- Blood pressure and factors that influence it.
- Problems and conditions of the cardiovascular systems (investigation).

Topic 3 – Blood – The Fluid of Life

- Stem cells; haematopoietic stem cells and the creation of blood cells.
- The composition of blood: overview.
- Red blood cells; structure and function in the human body; sickle cell disease.
- White blood cells; types and their role in immunity (phagocytes, lymphocytes and platelets); blood clotting.
- The composition and function of plasma.
- Methods of exchange of substances between cells and their environment; diffusion and osmosis.
- Factors affecting the rate of exchange of materials.

Topic 4 – DNA – The Genetic Code of Life

- The history of DNA; a brief look at the role key scientists made to our current understanding of DNA.
- The structure of DNA and RNA.
- The function of DNA; protein synthesis (transcription and translation); the diverse functionality of proteins.
- Genes, chromosomes (structure) and the human karyotype.
- Genetic mutations (gene and chromosome); sickle cell disease.

Topic 5 – Cell Replication – The Continuance of Life

- The cell cycle; interphase, mitotic phase and cytokinesis.
- DNA replication.
- The formation of gametes (sperm and ova) through meiosis.
- Fertilisation of gametes; sex determination and twins.

Topic 6 – Heredity – The Inheritance of Life

- Introduction to genetics.
- Autosomal inheritance; variations of genes – alleles (dominant and recessive); genotype and phenotype.
- Predicting outcomes of genetic crosses using Punnett squares.
- Sex-linked inheritance: genes carried on the X-chromosome; haemophilia.
- Using pedigrees to trace the inheritance of a trait or mutation.
- Multiple alleles and co-dominance; the ABO and Rh blood systems.

Assessment

Students undertake a variety of assessment tasks throughout the course, all of which are aimed for students to show their understanding and abilities of the course objectives.

Assessment tasks are dynamic and will include tasks from the list below:

Practical Investigations Logbook

- A selection of reports in your logbook will be assessed throughout the study.

Area of Study Tests

- Tests for both Area of Study 1 and Area of Study 2.

Research Investigation

- A research investigation related to an area of the course (changes regularly).

Examination

- At the end of the course (either mid/end year) covering all six topics studied.

Pathways from Foundation Biology

This course is **strongly recommended** for all students considering VCE Biology, which can lead into a variety of careers focusing on medicine, nursing, health, sport science, nutrition, environment, zoology, genetics and biotechnology, just to name a few.

Year 10 Foundation Chemistry

Rationale

Chemistry is the study of the very matter which makes up the universe and everything in it, from the water you drink to the amazingly complex series of chemical reactions which form the human body. It seeks to explain how different substances are formed, how they react, how they are the same and how they differ, how a very safe substance can become a very dangerous substance with little change happening. In chemistry, molecules and other substances are torn apart and their atoms joined back together in different patterns which behave in totally different ways.

Students will develop hands-on skills with a range of professional chemical apparatus including burettes and pipettes. They use this equipment to investigate many different types of chemical reactions and examine how different substances behave. Chemical equations are worked out with a focus on balancing the atoms and charges on each side. Students have a close look at the current theory of why different atoms behave the way that they do, and how this behaviour depends on the atomic structure, particularly the arrangement of the electrons. The periodic table is studied to see how it has been developed to arrange all known elements into patterns based on a range of properties.

Students undergo a research investigation which allows them to explore a question of interest related to the periodic table. In addition to the research investigation, a series of experiments are performed to investigate factors that influence the rate of chemical reactions. A poster is then developed which allows students to focus what they have learnt in an imaginative way.

Course Objectives

Area of Study 1 – Periodic Table and Trends

In this area of study, students are introduced to various concepts in the study of Chemistry. Students examine various atomic theories through history to the current model from Dalton to Chadwick. Students get to explore the structure of the atom and learn more about the subatomic particles such as protons, neutrons and electrons and their properties. They will learn about the periodic table, the contributions of Dmitri Mendeleev and how the elements have been organized into groups and periods based of specific properties.

Students will explore trends of the periodic table such as atomic radii, electronegativity and ionization energy. Students will learn about distinguish between isotopes and ions and their properties. They will explore the differences between elements and compounds through practical experiments.

Area of Study 2 – Chemical Reactions

In this area of study, students will learn to identify various types of chemical reactions and explore the different factors that affect rates of reactions, through experimentation. They will learn the theory of the mole concept and be able to calculate different quantities, such as mass and moles of substances in different elements and compounds. Students will learn about law of conservation of mass and covalent bonding. They will discover how to determine the concentration of solutions. Students will be introduced to the concept of redox reactions and apply that knowledge to electroplate jewellery.

Content

Topic 1 – Chemistry: Historical Development of the Atomic Model

- The various scientist and their contributions to the development of the current atomic model theory. (Dalton and Chadwick).

Topic 2 – Structure of the Atom

- The structure of the atom and the properties of the subatomic particles; protons, electrons and neutrons.
- The properties of isotopes of same elements.
- Understanding Bohr model of the atom and electronic configuration.
- Distinguish between elements and compounds.

Topic 3 – Periodic Table

- Historical collection of the scientists and their contributions to the evolution of the periodic table (Johann Dobereiner and Dmitri Mendeleev).
- Characteristics of the organization of elements in the periodic table.
- Trends in the periodic table (electronegativity, ionization energy and atomic radii).

Topic 4 – Ionic Compounds (Metal and Non-Metal)

- Understanding ionic bonding.
- Distinguish between cation and anion.
- Writing ionic formulae.
- Writing word equations and balanced chemical reactions.

Topic 5 – Chemical Reactions

- Types of chemical reactions.
- Signs of Chemical reactions.
- Law of conservation of mass.
- Understanding collision theory.

Topic 6 – Factors that Affect Rate of Reaction

- Measuring rate of reactions.
- Temperature affecting rate of reaction.
- Surface area affecting rate of reaction.
- Concentration affecting rate of reaction.
- Catalyst affecting rate of reaction.

Topic 7 – Molecular Compounds

- Understanding covalent bonding.
- Drawing molecular structures.

Topic 8 – Concentration

- Calculating the concentration of solutions (molarity).
- Practical: Titration – Testing Concentration.

Topic 9 – Redox Reactions

- Assigning oxidation numbers.
- Identifying redox reactions.
- Practical: Electroplating Jewellery.
- Redox Half Equations.

Assessment

Students undertake a variety of assessment tasks throughout the course, all of which are aimed for students to show their understanding and abilities of the course objectives.

Assessment tasks are dynamic and will include tasks from the list below:

Practical Investigations

- A selection of reports will be assessed throughout the study.

Area of Study or Topic Tests

- Tests either at the end of one or several topics or entire outcomes.

Research Investigation

- A research investigation related to an area of the course (changes regularly).

Examination

- At the end of the course (either mid/end year) covering all topics studied.

Pathways from Foundation Chemistry

This course is strongly recommended for all students considering VCE Chemistry, which can lead into a variety of careers focusing on medicine, nursing, health, sport science, nutrition, chemical sciences, pharmacology, forensics, environmental studies or chemical engineering.

This course is **strongly recommended** for all students considering VCE Chemistry, which can lead into a variety of careers focusing on medicine, nursing, health, sport science, nutrition, chemical sciences, pharmacology, forensics, environmental studies or chemical engineering.

Year 10 Foundation Physics

Rationale

Physics is about the nature of things such as motion, forces, energy, astronomy, matter and the insides of atoms. Physics explains why the sky is blue and apples fall to the ground, why your hair stands on end or you get an electric shock when you pull a woollen jumper over your head. It explains why you can touch a baking tray without burning your fingers soon after it has come out of the oven even though the biscuits are too hot to touch. It explains why nuclear bombs are so powerful and life destroying, yet nuclear medicine can be lifesaving.

Course Objectives

In this study, a range of physics concepts will be investigated, and the topics include:

- Astronomy
  - Explain how the sun produces energy, and compare its brightness and colour with other stars.
  - Correctly use terms like nebula, supernova, neutron star and black hole to describe the birth and death of stars.
- Forces
  - Use data to analyse everyday motions produced by forces.
  - Recognise that a stationary object, or a moving object with constant motion, has balanced forces acting on it.
  - Use Newton's Second Law to predict how a force affects the movement of an object.
  - Recognise and applying Newton's Third Law to describe the effect of interactions between two objects.
- Motion
  - Use data to analyse everyday motions produced by forces, and to investigate distance, displacement, speed, velocity, force, mass and acceleration.

Content

Students will undertake a variety of learning activities, real and virtual, to investigate some of the laws of physics, involving motion, and Newton's Laws. They will undertake various inquiry tasks with modelling components such as mousetrap cars, crash test dummies, building a model rocket and making an astronomical planisphere.

Physics can explain the smallest parts of an atom up to the immense magnitudes of the universe. Students will take a discovery tour of the universe by exploring ideas about celestial objects such as stars and galaxies, and use their planisphere to identify constellations.

Assessment

Students perform a range of practical experiments, investigation and activities.

Assessment includes:

- Practical Experiments
- Research Task
- Topic Tests
- Semester Examination.

This course is **strongly recommended** for all students considering VCE Physics, a vital science for entry into a range of careers and university courses including biomedicine, radiology and nuclear medicine, engineering, photonics, aeronautics and space science, climate science and renewable energy technologies.

Year 10 General Science 1 – Forensic Science

Rationale

General Science has been developed to allow students who are not planning to undertake VCE Science to continue to develop skills which are important beyond Secondary School.

This unit can also be taken by students wishing to broaden their studies in Science as it will complement the Foundation Science units offered at Year 10.

Course Objectives

The study of Forensic Science includes the work of forensic scientists and the major disciplines encompassed within the study. It also covers the uses of evidence in a criminal investigation for the identification of suspects. Microscopes are used to examine trace evidence and students investigate how to observe and identify fingerprints, blood groups and DNA. Critical thinking skills are developed as students assess the validity of difference types of evidence and apply the scientific method to problems related to forensic science, making inferences and drawing conclusions from accurate data.

Content

Forensic Science, in its broadest definition, is the application of science to law. Through this study of Forensic Science, students will be exposed to many of the disciplines of Science that contribute to collection of data, analysis of the data and the conclusions drawn in order to solve a crime.

Students will undertake microscopic studies of hair and fibres, examine the methods used for fingerprinting, and shoe impressions. They will carryout a simulation of DNA analysis using Gel Electrophoreses, look at blood geometry, and typing, and human skeletal structures when determining potential suspects for a crime scene. Students also learn Students also learn about post-mortem studies and investigate a variety of careers in Forensic Science.

Students perform a range of practical experiments and modelling activities that form a part of a Forensic investigation. They also undertake an investigation task that examines the history and techniques used in Fingerprinting.

Assessment

Students undertake a variety of assessment tasks throughout the course, all of which are aimed at the students being able to show their understanding and abilities in relation to the course objectives. These assessment tasks include:

- Practical investigations.
- Analysis of Cold Case studies.
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- End of topic tests.
- End of Semester examination.

Year 10 General Science 2 – Global Science

Rationale

In this inquiry-based course, students will be immersed in the changing world through a scientific lens. They will explore patterns in world disease, examine pandemics, bacterial resistance and natural selection, as well as immunisation and ethics in society. Students will consider the impact of climate change on our global system, as well as affecting our biodiversity. Students will research and apply an example of biomimicry to solve environmental challenges. A series of student-designed experiments that relate to studies within the course will allow students to demonstrate their scientific skills and present the findings of their practical investigation.

This is a new subject and will be available in Semester 2. More information to come.

Year 10 Geography 1 – Environmental Change

Rationale

The Earth is an amazing place, but we face challenges to preserve the environment while at the same time cope with sustaining the wellbeing of the world's ever-growing population. In this subject, students continue to develop their geographical knowledge and skills through an in-depth study of *Environmental Change*. Year 10 Geography 1 provides an excellent pathway for students wishing to study Geography Units 1-4 in VCE.

Course Objectives

- To understand the key functions of environments.
- To define environmental change, and understand how it can be both beneficial and negative.
- Identify the major challenges to environmental sustainability.
- Identify the impacts of environmental change from pollution, population growth, habitat loss and climate change.
- Understand some of the differing worldviews and responses to major environmental challenges.
- Learn how our coastal systems function, how they are changing and how we can manage them for a sustainable future.

Content

This course focuses on investigating environmental geography through an in-depth study of a specific environment. The unit begins with an overview of the environmental functions that support all life, the major challenges to their sustainability, and the environmental world views that influence how people perceive and respond to these challenges. Students investigate a specific type of environment and environmental change in Australia and one other country. They apply human–environment systems thinking to understand the causes and consequences of the change and geographical concepts and methods to evaluate and select strategies to manage the change.

Assessment

Assessment tasks include a geographical inquiry, an oral presentation, fieldwork, topic tests and a semester examination.

Year 10 Geography 2 – Global Awareness

Rationale

The Earth is an amazing place, but we face challenges to preserve the environment while at the same time cope with sustaining the wellbeing of the world's ever-growing population.

Students develop their geographical knowledge and skills through an in-depth study of *Geographies of Wellbeing,* developing their global awareness. Year 10 Geography 2 provides an excellent pathway for students wishing to study Geography Units 1-4 in VCE.

Course Objectives

- Learn different ways of measuring and mapping human wellbeing and development.
- Understand the reasons for differences in wellbeing between countries.
- Understand issues affecting the development of places and their impact on human wellbeing.
- Understand the reasons for, and consequences of, variations in human wellbeing in Australia and other regions.
- Learn about the role of national government and non-government organisations' initiatives in improving human wellbeing in Australia and other regions.

Content

This course focuses on investigating global, national and local differences in human wellbeing between places. Students examine the different concepts and measures of human wellbeing, and the causes of global differences in these measures between countries. They explore spatial differences in wellbeing within and between countries, and evaluate the differences from a variety of perspectives. They explore programs designed to reduce the gap between differences in wellbeing. These distinctive aspects of human wellbeing are investigated using studies drawn from Australia and across the world. Specific topics focus on Globalisation, Refugees and Global Citizenship.

Assessment

Assessment tasks include a geographical inquiry, an oral presentation, fieldwork, topic tests and a semester examination.

Year 10 German

Rationale

By learning to communicate effectively in a foreign language, students enhance their personal sense of identity and awareness in a multicultural Australia and gain an insight into the multilingual world God has created.

Course Objectives

- Communication – Students will learn to communicate in the language for a range of purposes and in a range of contexts.
- Socio Cultural Understanding – Students will not only develop an understanding of the culture(s) linked with German but also the ability to move beyond their own culture.
- Language Awareness – Students will develop an understanding of the way the language works, its structure, the role it plays and its effects.

Content

The Year 10 German curriculum continues the pattern of the previous years of language learning by refining the language base of the students with topics such as:

- Home and duties.
- Money – earning and spending.
- Talking about what has been done – leisure activities.
- Excursions and theme parks.
- Travel and holidays.

Assessment

Assessment is ongoing and includes written tasks, role plays, oral presentations, unit tests and semester examinations.

Year 10 History 1 – The 20th Century

Rationale

This course provides a study of the history of the modern world from 1918 to the present, with an added emphasis on Australia's involvement in and impact on global events. Critical events such as the Great Depression, World War II and the Civil Rights Movement have transformed both the world and our own nation. As we study this period of political turmoil, global conflict and rapid change, we gain not only a better understanding of our world, but also the development of Australia's increasingly important role in our region and world. We develop our historical understanding through key concepts, including evidence, continuity and change, cause and effect, perspectives and empathy.

Course Objectives:

By the end of this course, students will have gained an understanding of:

- The events and ideologies which led to World War II.
- The causes, course, and consequences of World War II.
- The key individuals, groups and actions which contributed to the Civil Rights Movements in Australia and the United States.

Content

History 1 is comprised of two depth studies. Students first undertake a study of World War II by investigating the ideologies and events which contributed to the outbreak of war in 1939. Key theatres of conflict and specific battles, including those involving Australians, are studied. Specific elements of the conflict, including the Holocaust and the atomic bombing of Japan, are looked at in detail. Students will consider multiple perspectives of events and form historical opinions based on research and sound evidence.

The second topic of study is Rights and Freedoms. This includes learning about the UN Declaration of Human Rights; the nature and effects of the US Civil Rights Movement; significant events in the Australian Civil Rights Movement; and continuity and change in securing civil rights and freedoms in Australia.

Assessment

To successfully complete the course, students undertake a range of assessment tasks including topic tests, historical inquiries, evidence analyses, collaborative group work, an essay, and an examination.

Year 10 History 2 – Extreme Events

Rationale

This semester-length unit investigates some of the most significant and extreme historical events during the modern period. From the dramatic upheavals of the Vietnam War to the horrors of the Rwandan Genocide, we look at how the world changed dramatically in short spaces of time. We understand the impact of the actions of individuals, groups and nations, and how one person can make a difference. This History elective provides a terrific preparation for studying Year 11 Twentieth Century History and Year 12 Revolutions. Students are not required to complete History 1 to study History 2.

Course Objectives:

By the end of this course, students will:

- Understand the causes and consequences of the Vietnam War.
- Understand the actions, inactions and prejudices that lead to the Rwandan Genocide.
- Develop an appreciation of the complexity of factors which lead to extreme historical events.
- Recognise how the actions of individuals can change the course of history.
- Appreciate the value of primary sources in understanding historical events.

Content

Key content for the Vietnam War includes the causes and consequences of conflict, including ideologies; key individuals, groups and nations; turning points in the war; the role of Australia; the nature of warfare in Vietnam; the response to war on the home front; and the peace process, de-escalation and aftermath.

Key content for the Rwandan Genocide includes understanding what genocide is and how it can happen; key individuals, groups and events in the 1994 Rwandan Genocide; how Rwanda has recovered over time; the responsibilities of the international community in preventing genocide; and what can be done to prevent genocide in the future.

Assessment

Students demonstrate evidence of their understanding by completing a range of assessment tasks including historical inquiries, evidence analyses, topic tests and an examination.

Year 10 Information Technology – Computer Science Discoveries

Oxley offers two IT electives in Year 10, *Game Development* and *Computer Science Discoveries*. Year 10 students can choose one or both semester-long IT subjects. Both subjects provide a strong foundation for IT studies in VCE.

Rationale

The course emphasis is on the effective use of information and information technology within an organisation and the development of computer systems for solving problems. It aims at helping students build a strong technical background and the ability to liaise with team members on group work. The course incorporates a breadth of knowledge around the technology fundamentals including computer hardware, networking, programming and interactive web design. Project management is an integral part of the course.

Course Content

- Build a Computer.
- Network Security and Programming.
- Interactive Website Development.
- Project Management in Web Development.

Assessment

- Projects.
- Examination.

Year 10 Information Technology – Game Development

Oxley offers two IT electives in Year 10, Game Development and Computer Science Discoveries. Year 10 students can choose one or both semester-long IT subjects. Both subjects provide a strong foundation for IT studies in VCE.

Rationale

Game Development is the art of creating video games and describes the design, development and release of a game. If you love games and want to learn how to make them, then this course will start you down that path. In this course students will familiarise themselves with the tools and practices of game development. When developing games, they consider the functional and non-functional requirements of a video game through interacting with users. At the end of the course students will have completed three hands-on game projects and will obtain the concepts behind the development of games and software. Project management is an integral part of the course.

Course Content

- Basic Game Development Using Block-Based Programming and Simple Game Graphics.
- Intermediate Game Development Using Text-Based Programming.
- Project Management.

Assessment

- Projects.
- Examination.

Year 10 Mathematics

Rationale

Mathematics education is a core part of preparing students to operate successfully in society. We assist each student to better grasp the elegance and usefulness of Mathematics in everyday life, and it can add to students' appreciation of God and the wonders of His creation.

Three streams are available: Specialist Stream, Mainstream, and General Stream. Each is designed to prepare students for further study of Mathematics during the VCE years. At the start of the year, each student is placed in a course based on their level of performance during the Year 9 Mathematics course.

Course Objectives

Students will be able to:

- Show understanding of the fundamental concepts involved in each topic.
- Make appropriate use of technology, including scientific and computer algebra system (CAS) calculators.
- Apply mathematical skills to practical situations.

Specialist Stream

This course is for able students of Mathematics. Students who are accelerating in VCE Mathematical Methods 1 & 2 are expected to take this concurrently with their VCE study.

The topics of Geometry, Rational and Irrational Numbers, Indices and Logarithms, Linear Relationships, Quadratic Relationships, Polynomials, Trigonometry, Advanced Trigonometry, Probability, Statistics, Polynomials and Measurement are studied. Students will also be shown how to use a CAS calculator and given extension work.

Mainstream

This course is for students who are of standard Year 10 ability in Mathematics. It covers a broad range of topics necessary for preparation for Units 1 & 2 of VCE Mathematics.

The topics of Geometry, Rational and Irrational Numbers, Indices and Logarithms, Linear Relationships, Quadratic Relationships, Trigonometry, Probability, Statistics, Polynomials and Measurement are studied. Students will also be shown how to use a CAS calculator and given extension work where appropriate.

General Stream

This course is for students who find Mathematics difficult. It does not cover the breadth of the other two Year 10 Mathematics courses and students are not required to study topics to the same depth as in the other courses. The course will sufficiently prepare students who are planning to study Units 1 & 2 VCE General Mathematics.

Topics covered are Linear Relationships, Measurement, Trigonometry, Algebra, Statistics, Geometry, Probability and Financial Mathematics. Students will also be shown how to use a CAS calculator.

Assessment

Assessment tasks for each course include:

- Weekly homework sheets and tests.
- Topic tests.
- Investigative projects.
- Problem solving tasks.
- Semester examination.

Year 10 Money, Markets and the Law

Rationale

In today's world of commerce, you need to be an explorer, an originator and an entrepreneur. This course uses a hands-on and practical approach to give students an introduction to the VCE Commerce courses which includes Business Management, Accounting, Economics and Legal Studies. Students will have opportunities to participate in teamwork and learn through interactive activities.

Course Objectives

This study is designed to enable students to:

- Apply economics and business knowledge, skills, and concepts to complex hypothetical business problems.
- Explore ways businesses structure their working environment to provide flexible, efficient approaches.
- Gain an overview of the macro, operating and internal environments and their influence on business planning.
- Learn how to record basic accounting transactions in cash journals and report in the Statement of Receipts and Payments, Income Statements and Balance Sheets for a small business owner.
- Examine the key features of the court system including hierarchy, jurisdictions, the difference between criminal and civil law (as jurisdictions are different), jury system.
- Explore independent judiciary, separation of powers, impartiality of the judiciary and jury system, right to appeal, adversary trial.
- Understand how economic markets work by exploring basic economic concepts such as demand and supply, market forces and the price mechanism.

Content

- Small Business management practices.
- Recording and reporting cash transactions for a small business.
- Government and Democracy, Laws, and Citizens.
- Markets and the economy.

Assessment

- Class tests
- Examination

Year 10 Music

Prerequisite

Students wishing to enrol in Year 10 Music should be able to play an instrument and have at least a basic understanding of music theory. Students are strongly encouraged to be taking private instrumental/vocal lessons and should be prepared to attend theory classes if necessary.

Rationale

Music is an integral part of all cultures and societies, both past and present. The study of music develops students' understanding of and ability in this art form. Also, formal study of music enhances students' capacities in learning generally, including memory, problem solving, motivation, and physical coordination.

Course Objectives

The aim of the Year 10 Music course is to enable students to become better musicians. Performance and Musicianship are the key areas of study, with Musicianship consisting of music theory, music analysis and research.

Course Content

Semester 1: Music for Stage and Screen

- **Performance:** Solo and Group on chosen instrument
- **Musicianship:** Aural and written theory including intervals, scales, chords, melody and rhythm; analysis of music in film. Analysis of music for stage including West Side Story; a research task on a composer of film music.

Semester 2: Jazz and Contemporary Popular Music

- **Performance:** Solo or Group on chosen instrument
- **Musicianship:** Aural and written theory developing from semester one; analysis of Jazz origins and style 1900 – present; analysis of contemporary popular music origins and style 1950s – present; Australian indigenous contemporary music; a research task on a Jazz artist.

Assessment

- **Performance:** Interim and final assessment of a solo and group performance.
- **Musicianship:** Research task; Semester examination.

Year 10 Physical Education

Rationale

God has created us with amazing bodies that we can choose to look after through exercise and sensible living. He has also created us to communicate with others. Physical education can effectively address and educate students in both these areas through the sporting activities conducted as part of the subject.

Course Objectives

The main purposes of this subject are to enable students to:

- Recognise and appreciate the wonderful body that God has given them, to value the importance of keeping this body healthy and to further consolidate the student's ability in the various practical activities. It is hoped that students carry these values and abilities into their future leisure activities.
- Recognise and appreciate the value of others, promoting the student's ability to demonstrate skills of cooperation, leadership, problem solving, self-control, self- discipline, perseverance, sportsmanship and fair play. Not only do these skills enable effective teamwork in sporting situations but are invaluable in the many facets of life as a whole.

Content

In Physical Education lessons, the initial focus is on fitness assessment and training, using a variety of methods. Students also participate in team games, where they continue to practise and develop their ball-handling and teamwork skills. These are used to help them develop their ability to work with others cooperatively and to continue to improve their skill level and ability to play games tactically.

Assessment

- Fitness testing assessments - use of common fitness tests to assess student level of fitness.
- Fitness training - observations made on level of fitness and perseverance displayed within the sessions.
- Observations on Sports Skills, whilst participating in class activities.
- Display of teamwork, cooperation and sportsmanship during lessons is also observed and reported on.

Year 10 Sports Analysis

Rationale

The athlete of today is analysed in every way to help them produce their most effective performance. Understanding biomechanical principles of movement is vital for assessing and improving technique of athletes, while gathering data of players during games can enable better understanding of the demands of the sport and direct training. The Sports Analysis elective gives students a glimpse of the role of sport science in improving athlete success. Understanding of this area will help prepare students for future studies in this area, such as they will encounter in VCE Physical Education. Alongside preparing students for further academic pursuit in this area, it provides students with knowledge and skills that they can employ in their own sporting lives.

Course Objectives

The main purposes of this subject are to enable students to:

- Understand some key biomechanical concepts that relate to successful sport technique.
- Relate changes in equipment or technique used in particular sports to improvements in performance.
- Recognise that God has created each of us individually, with characteristics that may suit us to particular sporting pursuits over others.
- Analyse statistical data and understand how this information can be used to improve performances of athletes and teams.
- Appreciate the role of sport science in the success of athletes.

Content

This course consists of two Areas of Study.

Area of Study 1 – Biomechanics

Students explore the physics of human movement, gaining an understanding of the scientific reasoning behind the techniques used for best sport performances. Changes to sport equipment may also be considered for particular sports. Students will participate in practical lessons that have them experience and analyse how biomechanics relates to different sporting movements.

Area of Study 2 – Games and movement analysis

This area focuses on the use of data gathering, including statistics, to provide sport scientists and coaches with information that can be used to further improve performance. Individual characteristics of athletes that cause them to be suited to particular sports, and the scientific reasons behind this are considered. Students will participate in regular practical lessons that have them experience and analyse these concepts.

Assessment

Assessment is covered in a number of different ways, including:

- Completion of class notes and activities – using the class book provided
- Participation in practical activities – level of engagement rather than sport skill itself
- Completion of practical activity worksheets and reflections – to demonstrate understanding of the concepts and their applications
- Investigations / reports related to applying concepts to sport
- Class quizzes and tests
- End of Semester examination.

Year 10 Visual Communication Design

Rationale

This course enables students to develop the capacity to solve communication and design problems creatively and imaginatively using the design process. It helps students acquire skills in visual thinking and expression with the aid of both manual (drawing) and digital (computer) methods. It improves their ability to use drawing as a way of recording their own ideas, observations and investigations while using creative, critical and reflective thinking techniques. Students develop their skills in freehand drawing, technical drawing and rendering to communicate their ideas effectively while working through the design process. Computer generated design also forms a large part of this course as students use the Adobe Creative Suite to produce finished digital artwork.

Course Objectives

- Introduce students to a range of design techniques, in both manual and digital.
- Understand and follow the different stages of the design process to develop a range of visual communications.
- Understand and successfully meet the needs of a design brief.
- Use the Adobe Creative Suite to produce finished digital artworks.

Content

- Freehand drawing and rendering.
- Technical drawing to communicate three-dimensional form.
- Digital Illustration using Adobe Illustrator and Adobe Photoshop.

Assessment

Students will be assessed on:

- Knowledge and understanding of concepts relating to the design process for producing visual communications.
- Creativity and skill in the production of different design pieces.
- Skill in the analysis of their own and others' designs.

This subject should be taken by students who might choose to study Visual Communication Design in future years.

oxley.vic.edu.au

15-49 Old Melbourne Road, Chirnside Park VIC 3116
Phone: +613 9727 9900 | Absence Line: +613 9727 9922 | office@oxley.vic.edu.au

Life Ministry Centre Ltd, trading as Oxley Christian College
ABN: 25 005 670 682 / 008
CRICOS Provider Code: 00331 C
CRICOS Course Codes: 016943K Primary Years 1–6 | 016944J Secondary Years 7–12