



Carinya

CHRISTIAN SCHOOL
From Christ and For Him

2022

YEAR 9 ELECTIVES

Round 2

COURSE DESCRIPTIONS



Agricultural Technology

Students studying Agricultural Technology at Carinya will be provided with a range of activities that will foster skills and attitudes in subduing and using God's creation while pursuing the task of agricultural production.

Students will experience aspects of an agricultural lifestyle through direct contact with plants and animals and a variety of outside activities. They explore the many and varied career opportunities in agriculture and its related service industries.

Students investigate the viability of Australian agriculture through the careful management of issues relating to the sustainability of agricultural systems, as well as the relationships between production, processing and consumption.

The study of a range of enterprises allows students to make responsible decisions about the appropriate use of agricultural technologies.

What will students learning about?

The essential content integrates the study of interactions, management and sustainability within the context of agricultural enterprises. These enterprises are characterized by the production and sale or exchange of agricultural goods or services, focusing on plants or animals or integrated plant/animal systems. The local environment will be considered in selecting enterprises, as will the intensive and extensive nature of the range of enterprises to be studied.

Types of Enterprises

Plant Enterprises

- Lucerne Production
- Maize Production
- Cereal Cropping
- Orchard/Propagation

Animal Enterprises

- Beef Production
- Prime Lamb Production
- Broiler Production
- Dairy Farming

Students will spend approximately half of the course time on practical experiences related to the chosen enterprises, including fieldwork, small plot activities, laboratory work and visits to commercial farms and other parts of the production and marketing chain. The skills of designing, investigating, using technology and communicating will also be developed over the period of the course.





Visual Arts

The aim of this course is to enable students to develop and enjoy practical and theoretical aspects of the Visual Arts as they represent their ideas and those of others through creating and writing.

Students engage with practice, the conceptual framework and frames in making and interpreting art. Students build a body of work, developed over time (including a visual arts process diary), using an extended range of materials and techniques (2D,3D,4D) and various investigations of God's world.

As well as the practical art making component, students will analyse, interpret and study the works of particular art histories and their artists.

Visual Arts allows students the opportunity to develop critical judgment, critical and practical autonomy and the skills for reflective action. They will learn to express themselves and understand others through visual language, and to worship God as they develop and use their God-given gifts.



Commerce provides the knowledge, skills, understanding and values that form the foundation on which young people make sound decisions on consumer, financial, business, legal and employment issues. It develops in students an understanding of commercial and legal processes and competencies for personal financial management. Through the study of Commerce students develop financial literacy which enables them to participate in the financial system in an informed way. Central to the course is the development of an understanding of the relationships between consumers, businesses and governments in the overall economy.

Commerce directly links into the stage 6 Business and Legal Studies courses.

The course is divided into the following topics:

- Consumer Choice
- Personal Finance
- Law and Society
- Employment Issues

And three options which may include one of the following:

- Investing
- Promoting and Selling
- E-commerce
- Global Links
- Towards Independence
- Political Involvement
- Travel
- Law in Action
- Our Economy
- Community Participation
- Running a Business



Design & Technology

From the earliest times, God has given humans the skill and knowledge to shape and alter their environment in service to Him and each other. Societies have designed and applied technology to solve the problems they faced every day. The application of technology has increased dramatically in the modern world and today impacts on most aspects of our daily lives. Our needs for food, water, clothing and shelter are met by goods which are produced, transported, manufactured, monitored, marketed and distributed world wide by sophisticated technologies. Communication systems increase our access to information. Work, school, health and leisure activities are serviced and shaped by complex technological systems.

Design & Technology aims to assist students towards becoming:

- innovative, resourceful, creative, flexible, articulate and highly skilled;
- technologically aware, literate, capable and responsible;
- aware that industrial and commercial activity must be balanced by environmental management;
- able to make informed choices, at the personal, national and global levels;
- appreciative of the contribution that designers and technologies have made in the past, and can make in the future, in improving the quality of life.

Design & Technology focuses on engaging students in technological innovation and the world of design, while exploring its impact. It provides opportunities for students to develop skills, knowledge and understanding about:

- designing products;
- the impact of past, current and emerging technologies on the individual, society and the environment;
- the work of designers and the issues and trends that influence their work;
- innovation, creativity and enterprise;
- communicating design ideas and solutions;
- the management of resources and the production of quality design solutions.

Design & Technology provides these opportunities by structuring problems that students attempt to solve through the use of a design process that results in a finished product with related documentation. The problems are set by the teacher and can come from any of the following focus areas:

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| • Agriculture | • Food |
| • Structures | • Fashion |
| • Aeronautics | • Jewellery |
| • Digital Media | • Interior |
| • Packaging | • Furniture |
| • Architecture | • Medical |
| • Engineering | • Software |
| • Transport Systems | • Graphics |
| • Environment | • Landscape |
| • Communication Systems | • Promotion |
| • Information Systems | • Accessories |
| | • Industry |
| | • Marine |

Design & Technology is a two-year course. During this time, between three and six problems may be tackled, each from a different focus area and each increasing in research and design requirements, skill level and final product expectations. Materials used to produce each product vary with the design problem and the nature of the focus area.



Food Technology

Food is provided by God for his creatures to enjoy. Food preparation can be a creative activity in its own right and fosters hospitality. These are all good gifts from the Lord to be richly enjoyed.

The study of Food Technology provides students with a broad knowledge and understanding of food properties, processing, preparation and their interrelationship, nutritional considerations and consumption patterns. It addresses the importance of hygiene and safe working practices and legislation in the production of food. Students will develop food-specific skills, which can then be applied in a range of contexts enabling students to produce quality food products. It also provides students with a context through which to explore the richness, pleasure and variety food adds to life and how it contributes to both vocational and general life experiences.

What will students learn about?

Students will learn about food in a variety of settings, enabling them to evaluate the relationships between food, technology, nutritional status and the quality of life. The following focus areas provide a context through which the core (Food preparation and process, Nutrition and consumption) will be studied:

- Food in Australia
- Food Service and Catering
- Food Equity
- Food for Special Dietary Needs
- Food Product Development
- Food for Special Occasions
- Food Selection and Health
- Food Trends

What will students learn to do?

The major emphasis of the Food Technology syllabus is on students exploring food-related issues through a range of practical experiences, allowing them to make informed and appropriate choices with regard to food. Integral to this course is students developing the ability and confidence to design, produce and evaluate solutions to situations involving food. They will learn to select and use appropriate ingredients, methods and equipment safely and competently.



iSTEM

Integrated Skills, Technology, Engineering & Mechanics

Science, Technology, Engineering and Mathematics are fundamental to shaping the future of Australia. They provide skills and knowledge that increasingly underpin many professions and trades and the skills of a technologically based workforce. The iSTEM program utilises these knowledge sources in application to Skills, Technology Engineering and Mechanics.

Course Structure

- Engineering Fundamentals: develop knowledge and understanding of Engineering; Skills, Principles and Processes, Mechanics.
- Aerodynamics: utilise inquiry-based learning strategies to develop solutions to aerodynamic problems.
- 3D CAD/CAM: develop skills in Computer Aided Design and Computer Aided Manufacture.
- Motion: utilise inquiry-based learning strategies to develop solutions to problems associated with motion.
- Mechatronics: utilise enquiry-based learning strategies to design and develop solutions to problems associated with combined mechanical and electrical systems.
- Research Project: utilise inquiry based learning strategies to apply appropriate design, production and evaluation skills to a contemporary scientific or technological based problem.

Inquiry-based learning activities will occupy the majority of this course time and students will develop an appreciation of the role and potential of science, technology, engineering and mathematics in the world in which they live.

Physical Activity and Sports Studies

Physical Activity and Sports Studies provides a comprehensive investigation of physical activity and movement. It incorporates a study of the way the body functions and how to move efficiently in a variety of contexts, in order to enjoy participation and to achieve performance goals. Social issues related to physical activity and its role in the lives of the individual and Australian society are also examined.

Participation in physical activity provides personal challenge, enjoyment and satisfaction. Physical Activity and Sport Studies represents a broad view of physical activity and the many possible contexts in which individuals can build activity into their lifestyle. It incorporates lifelong physical activities, recreational and leisure pursuits, competitive and non-competitive games and sports, individual and group experiences, physical fitness activities, and the use of activity for therapy and remediation.

Physical Activity and Sport Studies provides students with opportunities to develop their level of skill, analyse performance and assist the performance of others.

Areas of Study

- Body Systems & Energy for Physical Activity
- Issues in physical activity and sport
- Promoting active lifestyles
- Coaching & Leading
- Enhancing performance – strategies and techniques
- Event Management
- Physical Activity for Health
- Physical Fitness, Lifestyle, Leisure and Recreation



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