PATHWAY THREE – TRADES

Students who study in this pathway plan to undertake an apprenticeship or traineeship in a chosen field. Students will study Integrated Science as one of their class subjects as recommended by industry and will do only one unit each of Animal Production Systems and Plant Production Systems.

- Please note that places may be limited to 22 students

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<td>Design and Technology</td>
<td>Two courses to be undertaken to Certificate I or Certificate II level over 2 years in Automotives, Building and Construction, Engineering, Furnishing</td>
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*testing and streaming in Term 1 will determine student remaining in 1D/1E or being enrolled into 2A/B

**Animal Production Systems 1A**

In this unit students learn about animal production from basic processes through to the end product according to purpose. The teaching and learning is based around several animal enterprises including sheep, cattle, pigs and poultry. Students investigate animal anatomy and function, systems ecology and basic economics. Students will learn about basic nutrition, health & disease management, requirements for sustainable production and selection of animals for a specific purpose. They will routinely work with animals, collect and present data, recognise hazardous situations and suggest solutions. Practical activities include growing chickens and monitoring College livestock.

**Animal Production Systems 1B**

In this unit students learn about animal production systems from basic animal husbandry processes through to the available markets within the different enterprises, they also take part in creating farm budgets as well as recording and maintaining livestock records. The teaching and learning is based around sheep, cattle and pigs. Students investigate natural resources used in agriculture, expand on basic anatomy and physiology and look at the nutritional management of the different livestock enterprises. Students will also study animal health management including the cause, prevention and treatment of diseases, and the selection of animals for specific purposes. Students will routinely work with animals and use a variety of equipment found within animal production systems.

**Plant Production Systems 1A**

In this unit students learn about plant production from basic processes through to harvest of plant produce. The teaching and learning is based around broad acre cropping enterprises. Students investigate how healthy plants function, the different types of plant production and how agriculture has contributed to the shaping of society today. They learn about some economic tools and
their influence on plant production. Students identify and use a variety of equipment and structures safely. They routinely work with plants, recognise hazards and suggest solutions.

**Plant Production Systems 1B**

In this unit students learn about plant production from basic processes through to available markets for sale of plant produce. The teaching and learning is based around broad acre cropping enterprises. Students investigate plant function, available markets, and the effect plant production systems have on the environment and communities. They examine how plant production systems are part of natural systems and have an influence in both positive and negative ways on the elements within. Students have access to production systems to research plant production systems and enterprises, and discover how the function of essential plant structures affects production. They use a variety of specific equipment found within plant production systems and determine their effectiveness.

**English 1A / 1B**

These units cater for students who are interested in learning a trade or gaining employment when they leave the college. It is based on building reading, writing, speaking and listening skills for the workforce. This includes functional writing skills such as filling in forms and presenting their knowledge in writing; furthering reading skills for both enjoyment and information; and developing skills for presenting information verbally. Topics centre on the interests of the students and are chosen to help students become more engaged in reading and writing.

**English 1C / 1D**

This course follows on from the 1A, 1B stream taken in year 11. It further develops students’ literacy skills and brings in more analysis of contemporary texts. Students examine the way written and visual language can influence an audience, and the way that mass media texts can promote stereotypes. Throughout these units students will develop their writing skills, learning to present a structured argument, and vary their language to suit particular contexts. This course also includes a career studies topic to prepare students for gaining employment.

**Mathematics 1D/1E**

Students use decimals, fractions, percentages and ratios for practical purposes. They apply mathematics in making financial decisions. They calculate area and perimeter, apply trigonometric ratios and use Pythagoras’ theorem for the sides of triangles. They describe the effects of reflecting, rotating and translating shapes in design, and enlarge, reduce and distort figures. They interpret detailed maps or plans to create scale drawings and 2D or 3D models. Students collect measurement data from fair samples, display data in tables and graphs, calculate averages and describe spread of data. They use mental strategies, written methods, calculators and computer technologies for contexts such as home loans, farm shed design, mobile phone plans.

**Mathematics 2A/2B**

Students apply ratios and direct proportion in practical situations. They calculate profit, loss, discount and commission in financial contexts. They study introductory algebra and linear relationships in numeric, algebraic and graphical forms. They use Pythagoras’ theorem for the sides of triangles and analyse the reflection, rotation and translation of shapes in design. Students collect data from fair samples, and represent and interpret the data. They use mental and written methods, online learning and calculator-assisted technology where appropriate.

**Mathematics 2C/2D**

Students calculate interest and repayments in order to make decisions about savings and loans, and they interpret information on financial statements that are part of everyday living. They study and apply quadratic relationships. They extend their knowledge of coordinate geometry, and represent information in networks and interpret network diagrams. Students calculate and interpret probabilities for events with more than one chance component. They analyse datasets, determine trends in data and use trend lines for prediction. They use mental and written methods, online learning and calculator-assisted technologies where appropriate.
Integrated Science 1A / 1B
The focus for learning in Stage 1 units of Integrated Science is the practice of science, the knowledge of content from the biological, physical and environmental/earth science disciplines and an understanding of the impact of science on the world in which students live. There is a focus on the practical aspect of this course with laboratory experiments and practical investigations in the topic being covered. Other assessment types include assignments and small topic tests.
The 1A and 1B Course covers topics including Electricity, Simple Machines, Sport Science, Weather and Newton’s Laws of Motion.

Integrated Science 1C / 1D
The focus for learning in Stage 1 units of Integrated Science is the practice of science, the knowledge of content from the biological, physical and environmental/earth science disciplines and an understanding of the impact of science on the world in which students live. There is a focus on the practical aspect of this course with a strong emphasis on laboratory experiments and practical investigations. Other assessment types include assignments and small topic tests.
Topics covered in Yr 12 include basic Chemistry, Force and Motion and Aquaponics

Physical Education Studies 1A / 1B
Physical Education Studies has an emphasis placed on understanding and improving performance in physical activities. The integration of theory and practice is central to the studies of this course. In unit 1A students develop a basic understanding of anatomical, physiological and practical factors associated with performing in physical activities. Unit 1B enables the students to extend their knowledge on the bodies systems and expand their understanding of the effectiveness and efficiency as team members and individuals.

Physical Education Studies 1C / 1D
Physical Education Studies has an emphasis placed on understanding and improving performance in physical activities. The integration of theory and practice is central to the studies of this course. In Unit 1C students are introduced to simple movement, biomechanical, physiological, psychological, functional anatomy and motor leaning concepts that provide a basis for assessing and enhancing their own and others’ performance. The understanding of the relationship between skill, movement production and fitness will be further enhanced as students develop and improve. The focus of Unit 1D is for students to assess their own and others’ movement competency and identifies areas for improvement. They will build on their knowledge of training principles, nutrition and goal setting concepts to enhance their own and others’ performance in physical activity.