# Curriculum **Prospectus** 2021



WA COLLEGE of AGRICULTURE - HARVEY

An Independent Public School

#### **PURPOSE**

Our purpose is to provide education and training in an agriculture and related trades context, to enable our students to obtain high school graduation, the Western Australian Certificate of Education, and a variety of nationally recognised certificates. The aim is to provide the means for students to make a successful transition into work, apprenticeships or further study on graduating from the College.

#### We:

- Deliver education and training that integrates learning from a commercial farm, industrial style trade workshops and classroom settings.
- Simulate a realistic work environment through employing commercial practice on farm, working a longer day and shift work at times, insisting on professional standards of uniform and safety, fostering an entrepreneurial spirit and customer service, which all contribute to the development of work ethic.
- Develop independent living skills, promote accepted Australian values through collaborative and peer mediation skills obtained in a boarding setting, fostering team spirit through work and physical recreation both within the community, between groups on the campus, and between schools.
- Facilitate students obtaining experience on the job in their industry area through work experience.
- Collaborate with industry and the wider community to support student learning and development.

This Curriculum Prospectus provides a range of information on the pathways, courses and certificates on offer at the college and the processes utilised in their delivery, assessment, reporting and management.

I look forward to working with you and your child and a positive and productive association with the College.

Stephen Watt Principal

#### CODE OF PRACTICE

The Western Australian College of Agriculture – Harvey will ensure that policies and management practices are adopted which maintain high professional standards in the delivery of education and training services, and which safeguard the educational interests and welfare of all students.

#### 1. Delivery and Assessment of Education and Training Services

The Western Australian College of Agriculture – Harvey will ensure that appropriately qualified staff and adequate resources are available and utilised in the provision of education and training services.

#### 2. Marketing of Education and Training Services

The Western Australian College of Agriculture – Harvey will market its education and training services with integrity, accuracy and professionalism. In the provision of information, no false or misleading comparisons will be drawn with any other provider or course. As a Registered Training Organisation (50421), recognition will be accorded other Registered Training Organisations certifying achievement through the Training Accreditation Council.

#### 3. Student Recruitment and access to services

The Western Australian College of Agriculture – Harvey will ensure that the recruitment of students is conducted at all times in an ethical and responsible manner and that selection decisions are fair and comply with equal opportunity legislation.

#### 4. Student Information

The Western Australian College of Agriculture – Harvey will provide accurate and current information to students and prospective customers on all relevant matters. This will include course outcomes and assessment procedures, staff and facilities, fees charges and refund entitlements, admission criteria and procedures, termination of tuition and student withdrawal arrangement, internal and external grievance procedures and student welfare and support services.

#### 5. Financial Management

The Western Australian College of Agriculture – Harvey will ensure that all financial procedures comply with the Financial Administration and Audit Act and that a fair and equitable policy is applied for the refund of student fees and charges.

#### 6. **Certification**

The Western Australian College of Agriculture – Harvey will provide accurate and current information to students and prospective customers concerning course outcomes and competencies to be achieved, assessment procedures including the recognition of prior learning and the certification arrangements on completion and partial completion of the course. Certifications will be issued within 30 days of the learner being assessed as meeting the requirements of the training product.

7. The Western Australian College of Agriculture – Harvey is responsible for the quality of training and assessment in compliance with the 2015 RTO Standards and the issuance of the AQF Certification Documentation.

#### 8. Compliance with Relevant Legislation

The Western Australian College of Agriculture – Harvey in its delivery of education and training services complies with following legislation:

- School Education Act 1999 as a government school the college operates under Department of Education WA and all its relevant policies and procedures. These documents are available on the Department's Intranet under 'Our Policies'.
- Vocational Education and Training Act 1996 and the Vocational Education and Training (General Regulations) 2009 – as an RTO School under the Act the College requires approval from the Education Minster to provide a course or program and is to comply with directions as given by the minster in regards to fees, accounts to be kept and reporting requirements.

- Occupational Health and Safety Act 1984 the College provides a safe training and working environment using the Department of Education policies and guidelines. To assist the College has an OH&S Committee with OSH Representatives from all sections of operations.
- Anti discrimination legislation and regulations (Disability Discrimination, Human rights and Equal Opportunities, Racial discrimination, Sex Discrimination) – the college provides equal opportunity for all staff and students and ensures no staff member or student is disadvantaged, using the Department of Education policies and guidelines.
- Consumer protection requirements sufficient information is supplied to students upon enrolment and entry to the college.
- Working With Children Act all staff and volunteers who work at the college are required to have a current WWCC.
- Copy Right Act the college ensures that it will complies with this act in the reproduction and provision of materials to staff and students
- Privacy Act the College will ensure the details and records of students and staff are managed in accordance with the Act using the Department of Education policies and guidelines.

As a Registered Training Organisation the Western Australian College of Agriculture - Harvey cooperates with the Training Accreditation Council (TAC), its regulatory body, in the normal course of business and maintains compliance with the standards.

#### **DESCRIPTION OF THE SCHOOL**

#### A BRIEF HISTORY:

In 1953 the disused Second World War army training and internment facility was repurposed for housing students who wished to pursue an education centred around farming. It was administered by Harvey Junior High School and later the Harvey Agricultural Senior High School.

Initially, students were transported to local farms for the practical component of their courses, but gradually land around the site was purchased and a school farm established.

The campus only housed male students until 1988 when the first 2 females attended, boarding in the town. In 1992, a dormitory for girls was opened with 4 girls in attendance, and the campus has provided accommodation for both sexes ever since.

On the 19th January 1998, the Harvey Agricultural College officially came into being separating from its High School. In 1999, the building of the Harvey dam resulted in most of the land surrounding the Harvey site being sold, resulting in an agreement to purchase the Wokalup Research Station from the Department of Agriculture for use by the College.

In 2000, the Western Australian College of Agriculture was formed and Harvey joined four other Colleges in a consortium of schools with a similar ethos, purpose and operation.

In 2004, 3 Year 13 students were enrolled and in 2005, a trial group of Year 10 students made it the most diverse of all Ag Colleges that make up the Western Australian College of Agriculture. The trial was continued and expanded in 2006, laying the foundation for a 3-year course.

In 2009 confirmation was received that the College would be rebuilt on the Wokalup farm site. This news was widely welcomed by the school community as a way of consolidating all college operations on one site with new buildings. The trade centres were fully commissioned term two, 2012 and the rest of the campus operational for the 2013 academic year. The use of the original James Stirling Place site continues to be managed jointly by Harvey Health Care, Riding for the Disabled and WA College of Agriculture – Harvey.

In 2013 the College secured Independent Public School Status which enabled a degree of self-determination.

The College has grown to around 170 students with applications for places vastly exceeding capacity of the residence and learning program The College continues to provide valued pathways into employment, apprenticeships and further study and graduates find success across a wide range of industry areas.

#### THE STUDENTS:

WA College of Agriculture Harvey draws students who have successfully completed Year 9 or 10 from a wide range but predominantly the South-West land division from a range of backgrounds but a common interest in agriculture and related trades.

The College caters for around 170 students for year 10, 11 and 12 of which 126 students board and the remainder attend as day students. Approximately 40% of the population is female.

Most graduates enter the workforce on completion of their course, others continue training at either TAFE or University. Unemployment is virtually nil.

#### THE STAFF:

Over 75 staff are employed at the College which operates 24 hours per day 365 days of the year.

Residential Supervisors are employed day and night to provide pastoral care and the necessary services for boarding students. These are complemented on site by Catering, Cleaning and Laundry staff all dedicated to make the College a home away from home for the students.

Qualified staff with extensive experience are employed to deliver education and training to students across the range of curriculum and training areas. Quality staff are employed in the administrative and clerical divisions.

A Chaplain, Nurse and School Psychologist make up part of the Student Services Team.

#### **INDUSTRY SUPPORT**

The College receives significant industry support for developing and maintaining farm and trades training policy, facilities and processes, and in reviewing course offering.

#### **Industry supporter includes**

- Department of Primary Industries and Regional Development
- Herd Improvement Service of WA (FARMWEST)
- Department of Parks and Wildlife
- DFES Bushfires Board of WA
- Harvey Fresh & Harvey River Estate
- Worksafe WA
- Alcoa
- Agricultural Educators Association of WA & Australia
- Shire of Harvey
- Holstein Friesian Classifiers
- Royal Agricultural Society
- Forest Products Commission
- School Curriculum and Standards Authority
- Harvey Water
- F.I.T.S. (Forest Industry Training Services)
- Department of Fisheries
- Training and Accreditation Council
- WACoA (Other Ag Colleges)
- South West Education Region
- Department of Education
- South Regional TAFE
- Harvey Senior High School
- WesTrac
- Piacentini's
- HIA
- IAME
- Muresk

#### **COMPLIANCE, GUIDANCE and ADVISORY BODIES**

College Board – Community, family and staff representation
Agricultural Advisory Committee– Agricultural industry representation
Trade Advisory Group – Trade industry representation
Trade Training Management Committee – Ag College and High School representation

#### **ENTRY REQUIREMENTS**

The College is an Independent Public School, students choose to apply and acceptance is based on a selection process which aims to identify students who are committed to the style and ethos of the College and whose career aspirations can be cultivated.

Entry to the College is possible at either Year 10, 11 or 12, but most students tend to enter at Year 10 and exit after Year 12 having spent three years at the College.

Both boarding and day students are accepted into the College and all principles of social justice and equity are utilised in the selection process. Students older than 19 years on the day of enrolment will need to apply to the College to become full fee paying citizens and agree to abide by all College operating procedures.

**Secondary Students** usually complete Year 9 or 10 with reasonable levels of literacy and numeracy (Band 8 is suggested by the end of Year 10). Students provide school reports, references and other supporting evidence and an interview is conducted. An overall intake of approximately 64 students are selected in any one year.

#### **EDUCATION AND TRAINING GOALS**

The WA College of Agriculture Harvey aims for every student to graduate with the following certifications and awards.

Western Australian Certificate of Education Certificate II in Agriculture

Certificate II from each of the four Trades area

- Certificate I in Construction
- Certificate II in Automotive Vocational Preparation
- · Certificate II in Engineering Pathways
- Certificate II in Furniture Making Pathways

St John's Senior First Aid
White card (CPCCWHS1001 Prepare to Work Safely in Construction Industry)

Keys for Life

Optional qualifications

Certificate III in Agriculture

Certificate II in Production Horticulture

Certificate II in Wool Handling

Certificate II in Shearing

Certificate II in Rural Operations

Certificate III in Advanced Wool Handling (via South Regional TAFE)

Certificate II in Construction Pathway

Certificate II in Automotive Servicing Technology

Selection of higher level units leading to Statements of Attainment in

- · Certificate II in Engineering
- · Certificate II in Furniture Making

#### CONTRIBUTIONS, CHARGES AND FEES POLICY

College fees are set by the Finance Committee and endorsed by the Board and meet the policies and guidelines set by the Department of Education.

#### **ACCEPTANCE DEPOSIT**

A deposit of \$200.00 is payable upon acceptance of an offer at the College and is credited to first term fees. The Acceptance Deposit is fully refunded in the event of a written withdrawal being received prior to the start of Term One.

#### **INTERNAL FEES:**

Internal fees are outlined in the Contributions and Charges document and cover curriculum, training and associated costs. These are due and payable on the **first day of enrolment**. If a student leaves the College education programme, these fees will be refunded on a pro-rata based on Department of Education guidelines and in part to reflect items as yet unspent (refer to details listed in Contribution and Charges).

#### **BOARDING FEES:**

The first boarding fee instalment is due and payable on the first day of enrolment, with the second due on the first day of term two. The first and second boarding fee instalments must be cleared by the end of semester one for students to continue in the residence in semester two.

The third boarding fee instalment is due and payable on the first day of term 3. This instalment must be cleared **before** the commencement of term four.

Failure to clear all outstanding fees from Year 10 and 11 may result in residential status being denied at the commencement of the following year.

#### **Boarding Fees refund policy:**

The boarding fees refund policy is determined by the Department of Education on a pro-rata basis.

#### **PAYMENT PLANS:**

Payment plans can be arranged with the Manager of Corporate Services or Principal by parents wishing to pay by smaller instalments. In the absence of a formal agreed payment plan, there is an expectation that instalment deadlines are met.

#### **YEAR 10 PROGRAM**

The year 10 program combines elements of the Australian Curriculum (English, Maths, HASS, Science, Health and Physical Education) with training in agriculture and related trades aligning with certificate II qualifications (normally achieved by the end of year 11).

Students in Year 10 study 1 day per week on Farm, 3 days on Class and 1 day per week in the Trades workshops.

The year 10 program is set for all students and encompasses all Farm enterprise areas and all Trades industry areas over the course of the year.

#### YEAR 11 AND 12 PATHWAYS

In year 11 and 12 students have the ability to select a pathway with some option for tailoring a program that suits their interests and ability.

#### Pathway 1 ATAR (Australian Tertiary Admission Rank).

- study ATAR level courses in the class area leading to the Western Australian Certificate of Education (WACE) an ATAR which they may use to apply for university study post school.
- must sit the external State based exams at the end of Year 12 and internal College based exams each semester.
- work towards nationally recognised qualifications in the Farm and Trades areas. These
  qualifications will assist students to access employment and further training in the TAFE
  sector.
- spend three days in Class, one day on Farm and one day in Trades.
- may elect to work solely in agriculture (via work experience) in an attempt to achieve Certificate III in Agriculture once Trades qualifications are complete.
- ATAR units are much more rigorous academically and should only be chosen where an aspiration to generate an ATAR is genuine and realistic.
- preferred and recommended minimum entry requirement is a 'Category 3' for all components of the OLNA.

#### Pathway 2 General

- study General level courses in the class area leading to the Western Australian Certificate of Education (WACE).
- use their nationally recognised qualifications gained on Farm and in the Trades area as well
  as their WACE to access employment, traineeships, apprenticeships and further training at
  TAFE.
- will be required to sit the external State based assessments during term 2 Year 12.
- spend two days in Class, one day in Trades and one day on Farm, plus an option of either one additional day on Farm or one additional day in Trades.
- will not generate an ATAR.

#### **YEAR 11 AND 12 PROGRAM**

The following table shows the breakdown of Class, Trades and Farms days for each of the two pathways on offer in Year 11 and 12.

Location	ATAR Pathway 1	GENERAL Pathway 2
CLASS	3 Days	2 Days
	English/Mathematics/Plant Production Systems/ Animal Production Systems/Biology	English/Mathematics/Plant Production Systems/ Animal Production Systems  Accounting Finance- year 11 only
TRADES	1 Day	1 or 2 Days
	Yr 11 All Trade areas Yr 12 Select preferences	Yr 11 All Trade areas Yr 12 Select preferences
FARM	1 Day or 2 Days	1 or 2 Days
	Yr 11 All Farm areas Yr 12 All Farm areas	Yr 11 All Farm areas Yr 12 All Farm areas

#### **Course options**

ATAR students may elect to drop a day of Trades in favour of an extra day on Farm. This is only likely to be approved for students who are in their second year at the College, have completed at least two trade qualifications, or those attempting Certificate III in Agriculture, and there is capacity and resources on Farm available.

Year 12 General Pathway students who have been at the college for at least 1 year may elect to drop a day of Trades or Farm and undertake a day of Structured Workplace Learning. To be eligible students must meet the following criteria:

- Completed Certificate II in Agriculture and VETPIA (to drop a day of farm)
- Completed 4 trade qualifications if you have been at the College for two years, or completed 2 trade qualifications if you have been at the College for one year (to drop a day of trades)

The following table illustrates the two pathways through the range of courses on offer in the Class area.

	Year 10	Year 11	Year 12	ACHIEVEMENT
ATAR	Australian Curriculum Maths, English, Science, HASS, Health & Physical Education	Maths Applications Units 1&2 English ATAR Units 1&2 Plant Production Systems ATAR Units 1&2 Animal Production Systems ATAR Units 2 Biology ATAR Units 1&2 Primary Industries (VET Industry specific) Units 1&2	Maths Applications Units 3&4  English ATAR Units 3&4  Plant Production Systems ATAR Units 3&4  Animal Production Systems ATAR Units 3&4  Biology ATAR Units 3&4  Primary Industries (VET Industry specific) Units 3 & 4	ATAR  WACE= High School Graduation
GENERAL	College based curriculum  Animals and Plants	Maths Essential Units 1&2 English General Units 1&2 Plant Production Systems General Unit 2 Animal Production Systems General Unit 2 Primary Industries (VET Industry specific) Units 1&2 Accounting and Finance General Unit 1	Maths Essential Unit 3&4  English General Unit 3&4  Plant Production Systems General Units 3&4  Animal Production Systems General Units 3&4  Primary Industries (VET Industry specific) Units 3&4	WACE= High School Graduation

Students who are not likely to achieve Category 3 in the Online Literacy and Numeracy Assessment by the end of Year 12 will have an individual education plan developed.

Outlines of all Courses can be found on the School Curriculum Assessment Standards Authority website at <a href="http://www.scasa.wa.edu.au/internet/Senior\_Secondary/Courses/Courses">http://www.scasa.wa.edu.au/internet/Senior\_Secondary/Courses/Courses</a>. Parents without internet connection are invited to contact the college to seek detail about specific course outlines.

#### **CLASS COURSES ON OFFER**

#### Year 10

#### Australian Curriculum

The areas of English, Mathematics, Science, Humanities and Social Sciences and Health and Physical Education are delivered as per the Australian Curriculum for Year 10.

#### **Agriculture**

#### **Animals**

In this unit, students learn about the types and features of animal enterprises and the selection of livestock to meet production goals. Students learn about animal life cycles, and stages of growth and development and how they influence production systems. They consider the nutritional and welfare needs of animals in different systems and recognise signs of ill health. Students use basic economic concepts associated with animal production to guide decision-making as well as investigate aspects of animal production. They learn about the safe, efficient and effective use of equipment and resources used in animal production.

The content should be based around one or more animal production enterprises.

#### **Plants**

In this unit, students learn about the basic structure and function of plants, plant processes and the types and features of plant enterprises. The teaching and learning is based around one or more plant enterprises. Students learn about the types of crops and plant pests common to Western Australia, as well as the safe, efficient and effective use of equipment and resources used in plant production. Students use basic economic concepts associated with plant production to guide decision-making and investigate aspects of plant production.

The content should be based around one or more plant production enterprises.

#### **ENGLISH**

#### 11ATAR ATAR Unit 1

Students explore how meaning is communicated through the relationships between language, text, purpose, context and audience. This includes how language and texts are shaped by their purpose, the audiences for whom they are intended and the contexts in which they are created and received. Through responding to and creating texts, students consider how language, structure and conventions operate in a variety of imaginative, interpretive and persuasive texts. Study in this unit focuses on the similarities and differences between texts and how visual elements combine with spoken and written elements to create meaning. Students develop an understanding of stylistic features and apply skills of analysis and creativity. They are able to respond to texts in a variety of ways, creating their own texts and reflecting on their own learning.

#### **ATAR Unit 2**

Students analyse the representation of ideas, attitudes and voices in texts to consider how texts represent the world and human experience. Analysis of how language and structural choices shape perspectives in and for a range of contexts is central to this unit. By responding to and creating texts in different modes and media, students consider the interplay of imaginative, interpretive and persuasive elements in a range of texts and present their own analyses. Students critically examine the effect of stylistic choices and the ways in which these choices position audiences for particular purposes, revealing and/or shaping attitudes, values and perspectives. Through the creation of their own texts, students are encouraged to reflect on their language choices and consider why they have represented ideas in particular ways.

#### 12ATAR ATAR Unit 3

Students explore representations of themes, issues, ideas and concepts through a comparison of texts. They analyse and compare the relationships between language, genre and contexts, comparing texts within and/or across different genres and modes. Students recognise and analyse the conventions of genre in texts and consider how those conventions may assist interpretation. Students compare and evaluate the effect of different media, forms and modes on the structure of texts and how audiences respond to them. Understanding of these concepts is demonstrated through the creation of imaginative, interpretive, persuasive and analytical responses.

#### **ATAR Unit 4**

Students examine different interpretations and perspectives to develop further their knowledge and analysis of purpose and style. They challenge perspectives, values and attitudes in texts, developing and testing their own interpretations though debate and argument. Through close study of texts, students explore relationships between content and structure, voice and perspectives and the text and context. This provides the opportunity for students to extend their experience of language and of texts and explore their ideas through their own reading and viewing. Students demonstrate understanding of the texts studied through creation of imaginative, interpretive, persuasive and analytical responses.

## 11General General Unit 1

Unit 1 focuses on students comprehending and responding to the ideas and information presented in texts. Students:

- employ a variety of strategies to assist comprehension
- read, view and listen to texts to connect, interpret and visualise ideas
- learn how to respond personally and logically to texts by questioning, using inferential reasoning and determining the importance of content and structure
- consider how organisational features of texts help the audience to understand the text
- learn to interact with others in a range of contexts, including everyday, community, social, further education, training and workplace contexts
- communicate ideas and information clearly and correctly in a range of contexts
- apply their understanding of language through the creation of texts for different purposes.

#### **General Unit 2**

Unit 2 focuses on interpreting ideas and arguments in a range of texts and contexts.

#### Students:

- analyse text structures and language features and identify the ideas, arguments and values expressed
- consider the purposes and possible audiences of texts
- examine the connections between purpose and structure and how a text's meaning is influenced by the context in which it is created and received
- integrate relevant information and ideas from texts to develop their own interpretations
- learn to interact effectively in a range of contexts
- create texts using persuasive, visual and literary techniques to engage audiences in a range of modes and media.

## 12 General General Unit 3

Unit 3 focuses on exploring different perspectives presented in a range of texts and contexts.

#### Students:

- explore attitudes, text structures and language features to understand a text's meaning and purpose
- examine relationships between context, purpose and audience in different language modes and types of texts, and their impact on meaning
- consider how perspectives and values are presented in texts to influence specific audiences
- develop and justify their own interpretations when responding to texts
- learn how to communicate logically, persuasively and imaginatively in different contexts, for different purposes, using a variety of types of texts.

#### **General Unit 4**

Unit 4 focuses on community, local or global issues and ideas presented in texts and on developing students' reasoned responses to them.

#### Students:

- explore how ideas, attitudes and values are presented by synthesising information from a range of sources to develop independent perspectives
- analyse the ways in which authors influence and position audiences
- investigate differing perspectives and develop reasoned responses to these in a range of text forms for a variety of audiences
- construct and clearly express coherent, logical and sustained arguments and demonstrate an understanding of purpose, audience and context
- consider intended purpose and audience response when creating their own persuasive, analytical, imaginative, and interpretive texts.

#### **MATHEMATICS**

#### 11ATAR

**Mathematics Applications** is an ATAR course which focuses on the use of mathematics to solve problems in contexts that involve financial modelling, geometric and trigonometric analysis, graphical and network analysis, and growth and decay in sequences. It also provides opportunities for students to develop systematic strategies based on the statistical investigation process for answering questions that involve analysing univariate and bivariate data, including time series data.

#### ATAR Unit 1

This unit has three topics: 'Consumer arithmetic', 'Algebra and matrices', and 'Shape and measurement'.

'Consumer arithmetic' reviews the concepts of rate and percentage change in the context of earning and managing money and provides a fertile ground for the use of spread sheets.

'Algebra and matrices' continues the Year 7–10 curriculum study of algebra and introduces the topic of matrices. The emphasis of this topic is the symbolic representation and manipulation of information from real-life contexts using algebra and matrices.

'Shape and measurement' builds on and extends the knowledge and skills students developed in the Year 7–10 curriculum with the concept of similarity and associated calculations involving simple geometric shapes. The emphasis in this topic is on applying these skills in a range of practical contexts, including those involving three-dimensional shapes.

Classroom access to the technology necessary to support the computational aspects of the topics in this unit is assumed.

#### ATAR Unit 2

This unit has three topics: 'Univariate data analysis and the statistical process', 'Linear equations and their graphs', and 'Applications of trigonometry'.

'Univariate data analysis and the statistical process' develops students' ability to organise and summarise univariate data in the context of conducting a statistical investigation.

'Linear equations and their graphs' uses linear equations and straight-line graphs, as well as linearpiece-wise and step graphs to model and analyse practical situations.

'Applications of trigonometry' extends students' knowledge of trigonometry to solve practical problems involving non-right- angled triangles in both two and three dimensions, including problems involving the use of angles of elevation and depression and bearings in navigation.

Classroom access to the technology necessary to support the graphical, computational and statistical aspects of this unit is assumed.

#### 12ATAR ATAR Unit 3

This unit has three topics: 'Bivariate data analysis', 'Growth and decay in sequences', and 'Graphs and networks'.

'Bivariate data analysis' introduces students to some methods for identifying, analysing and describing associations between pairs of variables, including the use of the least-squares method as a tool for modelling and analysing linear associations. The content is to be taught within the framework of the statistical investigation process.

'Growth and decay in sequences' employs recursion to generate sequences that can be used to model and investigate patterns of growth and decay in discrete situations. These sequences find application in a wide range of practical situations, including modelling the growth of a compound interest investment, the growth of a bacterial population, or the decrease in the value of a car over time. Sequences are also essential to understanding the patterns of growth and decay in loans and investments that are studied in detail in Unit 4.

'Graphs and networks' introduces students to the language of graphs and the ways in which graphs, represented as a collection of points and interconnecting lines, can be used to model and analyse everyday situations, such as a rail or social network.

Classroom access to technology to support the graphical and computational aspects of these topics is assumed.

#### **ATAR Unit 4**

This unit has three topics: 'Time series analysis', 'Loans, investments and annuities', and 'Networks and decision mathematics'.

'Time series analysis' continues students' study of statistics by introducing them to the concepts and techniques of time series analysis. The content is to be taught within the framework of the statistical investigation process.

'Loans investments and annuities' aims to provide students with sufficient knowledge of financial mathematics to solve practical problems associated with taking out or refinancing a mortgage and making investments.

'Networks and decision mathematics' uses networks to model and aid decision making in practical situations.

Classroom access to the technology necessary to support the graphical, computational and statistical aspects of this unit is assumed.

#### 11General

**Mathematics Essential** is a General course which focuses on using mathematics effectively, efficiently and critically to make informed decisions. It provides students with the mathematical knowledge, skills and understanding to solve problems in real contexts for a range of workplace, personal, further learning and community settings. This course provides the opportunity for students to prepare for post-school options of employment and further training.

#### **General Unit 1**

This unit provides students with the mathematical skills and understanding to solve problems relating to calculations, applications of measurement, the use of formulas to find an unknown quantity and the interpretation of graphs. Throughout this unit, students use the mathematical thinking process. This process should be explicitly taught in conjunction with the unit content. Teachers are advised to apply the content of the four topics in this unit: Basic calculations, percentages and rates; Algebra; Measurement; and Graphs, in contexts which are meaningful and of interest to their students. Possible contexts for this unit are Earning and managing money and Nutrition and health.

It is assumed that an extensive range of technological applications and techniques will to be used in teaching this unit. The ability to choose when or when not to use some form of technology, and the ability to work flexibly with technology, are important skills.

The number formats for the unit are whole numbers, decimals, common fractions, common percentages, square and cubic numbers written with powers.

#### **General Unit 2**

This unit provides students with the mathematical skills and understanding to solve problems related to representing and comparing data, percentages, rates and ratios and time and motion. Students further develop the use of the mathematical thinking process and apply the statistical investigation process. The statistical investigation process should be explicitly taught in conjunction with the statistical content within this unit. Teachers are advised to apply the content of the four topics in this unit: Representing and comparing data; Percentages; Rates and ratios; and Time and motion, in a context which is meaningful and of interest to their students. Possible contexts for this unit are Transport and Independent living.

It is assumed that students will be taught this course with an extensive range of technological applications and techniques. The ability to be able to choose when or when not to use some form of technology and to be able to work flexibly with technology are important skills.

The number formats for the unit are whole numbers, decimals, fractions and percentages, rates and ratios.

#### 12 General General Unit 3

This unit provides students with the mathematical skills and understanding to solve problems related to measurement, scales, plans and models, drawing and interpreting graphs and data collection. Students use the mathematical thinking process and apply the statistical investigation process. Teachers are encouraged to apply the content of the four topics in this unit: Measurement; Scales, plans and models; Graphs in practical situations; and Data collection, in a context which is meaningful and of interest to the students. A variety of approaches could be used to achieve this purpose. Possible contexts for this unit are Construction and design, and Medicine.

It is assumed that an extensive range of technological applications and techniques will be used in teaching this unit. The ability to choose when, and when not, to use some form of technology, and the ability to work flexibly with technology, are important skills.

The number formats for the unit are positive and negative numbers, decimals, fractions, percentages, rates, ratios, square and cubic numbers written with powers and square roots.

#### **General Unit 4**

This unit provides students with the mathematical skills and understanding to solve problems related to probability, earth geometry and time zones, loans and compound interest. Students use the mathematical thinking process and apply the statistical investigation process to solve problems involving probability. Teachers are advised to apply the content of the three topics in this unit: Probability and relative frequencies; Earth geometry and time zones; and Loans and compound interest, in a context which is meaningful and of interest to the students. Possible contexts for this unit are Finance, and Travel.

It is assumed that an extensive range of technological applications and techniques will be used in teaching this unit. The ability to choose when, and when not, to use some form of technology, and the ability to work flexibly with technology, are important skills.

The number formats for the unit are positive and negative numbers, decimals, fractions, percentages, rates, ratios and numbers expressed with integer powers.

#### ANIMAL PRODUCTION SYSTEMS

#### 11ATAR ATAR Unit 1

In this unit students learn about different digestive processes in livestock. They consider how feed rations change depending on physiological state. Students learn about the impacts of animal production on the natural environment, and stewardship of natural and farming resources. They learn about the value of domestic animal production, and marketing options. Students will be involved in an investigation and will learn to identify the elements of valid experimental design. Students apply breed selection criteria to produce to market requirements profitably.

#### **ATAR Unit 2**

In this unit students learn about reproductive processes, and breeding cycles in selected livestock. They learn to apply this knowledge to manage natural breeding programs. Students learn about the principles of genetics and the effect of interactions between genotype and environment and how this can influence animal breeding. They learn about monitoring and managing pest populations and identify risks to sustainable production. They learn how immunity develops from a scheduled vaccination program. They will learn about the relationship between feed on offer and stocking rates. Students learn about the factors affecting supply and demand for an animal product, and how to prepare budgets for an enterprise.

#### 12ATAR ATAR Unit 3

In this unit, students learn about the manipulation of animal breeding, including natural and artificial techniques, to optimise production. They apply their knowledge of animal nutrition to construct feeding programs that will assist in meeting market specifications. Students learn about the importance of sustainable management practices and the balance of short-term financial needs with long-term improvement of resources. Students identify major markets, recognise the advantages of Australian produce and the role of quality assurance. Students evaluate experimental data and scientific method, as well as proposing areas for future investigation.

#### **ATAR Unit 4**

In this unit, students identify issues for Australia in maintaining global competitiveness, and examine market protection strategies. Students investigate the implications of climate change on animal production systems, and current and future options to address these issues. They consider and propose solutions to address sub-optimal production. They consider the advantages and disadvantages of new technologies, and their related ethical and economic issues. They assess and manage risks involved in animal production and use financial analysis to guide decision making. They consider the importance of conservation and restoration of natural and agricultural ecosystems, and propose short-term and long-term enterprise goals.

#### 11 General General Unit 2

In this unit, students learn about animal physiological processes. They learn to match feed types and quantities according to animal requirements, and to adjust stocking rates according to feed availability. Students learn about natural resources used in agriculture and the importance of protecting natural ecosystems. They investigate pests in production systems and consider strategies to manage this challenge. Students will be involved in an investigation and will learn to identify the elements of valid experimental design. Students identify market specifications for animal products, develop a calendar of operations and calculate profit.

### 12 General General Unit 3

In this unit students learn about different digestive processes in livestock. They consider how feed rations change depending on physiological state. Students learn about the impacts of animal production on the natural environment, and stewardship of natural and farming resources. They learn about the value of domestic animal production, and marketing options. Students will be involved in an investigation and will learn to identify the elements of valid experimental design. Students apply breed selection criteria to produce to market requirements profitably.

#### **General Unit 4**

In this unit students learn about reproductive processes, and breeding cycles in selected livestock. They learn to apply this knowledge to manage natural breeding programs. Students learn about the principles of genetics and the effect of interactions between genotype and environment and how this can influence animal breeding. They learn about monitoring and managing pest populations and identify risks to sustainable production. They learn how immunity develops from a scheduled vaccination program. They will learn about the relationship between feed on offer and stocking rates. Students learn about the factors affecting supply and demand for an animal product, and how to prepare budgets for an enterprise.

#### PLANT PRODUCTION SYSTEMS

#### 11ATAR ATAR Unit 1

In this unit students learn about plant anatomy, growth and development and how these contribute to the production of a marketable product. They learn about plant responses to different growing conditions as well as the impact of pests, including options to minimise negative effects and promote sustainability. Students examine the properties of different soil types and how these affect the plant's ability to access requirements for growth. Students learn about the impacts of plant production on the natural environment, and stewardship of natural and farming resources. They learn about the value of domestic plant production, and marketing options. Students will be involved in an investigation and will learn to identify the elements of valid experimental design.

#### ATAR Unit 2

In this unit students learn about the improvement of the immediate plant environment to optimise growth and development through all phases of plant growth. This includes fertiliser application and soil management techniques Students learn about the principles of genetics and the effect of interactions between genotype and environment and how this can influence plant breeding. They learn about monitoring and managing pest populations and identify risks to sustainable production. Students learn about the role of quality assurance (QA) programs in plant production systems and how to prepare budgets for an enterprise.

#### 12ATAR ATAR Unit 3

In this unit, students learn about the importance of sustainable management practices, and the balance of short-term financial needs with long-term maintenance and improvement of resources. Students identify major markets and advantages of Australian produce, and the role of quality assurance. They consider factors involved in fertiliser selection, and use production records in decision making. Students evaluate experimental data and scientific method, as well as proposing areas for future investigation.

#### ATAR Unit 4

In this unit, students identify issues for Australia in maintaining global competitiveness, and examine market protection strategies. Students investigate the implications of climate change on plant production systems, and the breeding of new cultivars. Students learn about manipulating plant processes and managing pests to optimise production in a sustainable manner. They consider and propose solutions to address suboptimal production. They consider the advantages and disadvantages of new technologies, and their related ethical and economic issues. They assess and manage risks involved in plant production and use financial analysis to guide decision making. They consider the importance of conservation and restoration of natural and agricultural ecosystems, and propose short-term and long-term enterprise goals.

#### 11 General General Unit 2

In this unit students learn about plant production through the provision of an optimum growing environment. They identify market specifications for plant products, develop a calendar of operations and calculate profit.

Students learn about natural resources used in agriculture and the importance of protecting natural ecosystems. They interpret information concerning chemical use and how to comply with industry codes of practice. Students will be involved in an investigation and will learn to identify the elements of valid experimental design.

### 12 General General Unit 3

In this unit students learn about plant anatomy, growth and development and how these contribute to the production of a marketable product. They learn about plant responses to different growing conditions as well as the impact of pests, including options to minimise negative effects and promote sustainability. Students examine the properties of different soil types and how these affect the plant's ability to access requirements for growth. Students learn about the impacts of plant production on the natural environment, and stewardship of natural and farming resources. They learn about the value of domestic plant production, and marketing options. Students will be involved in an investigation and will learn to identify the elements of valid experimental design.

#### **General Unit 4**

In this unit students learn about the improvement of the immediate plant environment to optimise growth and development through all phases of plant growth. This includes fertiliser application and soil management techniques Students learn about the principles of genetics and the effect of interactions between genotype and environment and how this can influence plant breeding. They learn about monitoring and managing pest populations and identify risks to sustainable production. Students learn about the role of quality assurance (QA) programs in plant production systems and how to prepare budgets for an enterprise.

#### **BIOLOGY**

#### Year 11 ATAR

#### Unit 1

In this unit, students investigate and describe a number of diverse ecosystems, exploring the range of biotic and abiotic components to understand the dynamics, diversity and underlying unity of these systems.

Students develop an understanding of the processes involved in the movement of energy and matter in ecosystems. They investigate ecosystem dynamics, including interactions within and between species, and interactions between abiotic and biotic components of ecosystems. They also investigate how measurements of abiotic factors, population numbers and species diversity, and descriptions of species interactions, can form the basis for spatial and temporal comparisons between ecosystems. Students use classification keys to identify organisms, describe the biodiversity in ecosystems, investigate patterns in relationships between organisms, and aid scientific communication.

#### Year 11 ATAR Unit 2

In this unit, students examine inputs and outputs of cells to develop an understanding of the chemical nature of cellular systems, both struct5urally and functionally, and the processes required for cell survival. Students investigate the ways in which matter moves and energy is transformed and transferred in the processes of photosynthesis and respiration, and the role of enzymes in controlling biochemical systems.

Students examine the structure and function of plant and animal systems at cell and tissue levels in order to describe how they facilitate the efficient provision or removal of materials to and from all cells of the organism.

### Year 12 ATAR Unit 3

In this unit, students investigate mechanisms of heredity and the ways in which inheritance patterns can be explained, modelled and predicted; they connect these patterns to population dynamics and apply the theory of evolution by natural selection in order to examine changes in populations.

### Year 12 ATAR Unit 4

In in unit, students investigate system change and continuity in response to changing external conditions and pathogens; they investigate homeostasis and the transmission and impact of infectious disease; and they consider the factors that encourage or reduce the spread of infectious disease at the population level.

#### **ACCOUNTING & FINANCE**

#### Year 11 General Unit 1

The focus for this unit is personal finance. The concepts, principles and terminology used in financial decision making and management on a personal basis are introduced. The unit addresses main institutions that operate in financial markets and how governments and other bodies can affect the way individuals and groups make financial decisions. The main financial documents and reports used in personal financial transactions and decision making and the systems that facilitate individuals to carry out their financial transactions are considered.

#### PRIMARY INDUSTRY VET INDUSTRY SPECIFIC

#### **Course content**

A VET industry specific course includes a full, nationally recognised AQF qualification; mandatory industry related workplace learning and contributes towards the WACE as a WACE course instead of unit equivalence. The most current training packages are used in these courses and are updated regularly as new versions are endorsed.

The Certificate II in Agriculture completed in this course, results in the achievement of **FOUR** course units (two Year 11 units and two Year 12 units). Completion of **TWO** Authority-developed Workplace Learning endorsed program unit equivalents is compulsory to meet program requirements, and must be from industry related placement (farm practical)/employment relevant to the job outcome at this level. This is completed onsite at the College.

#### **WORKPLACE LEARNING (ADWPL)**

Year 11 & 12

The Workplace Learning endorsed program provides an opportunity for a student to demonstrate, and develop increasing competence in, the core skills for work, often referred to as generic, transferable or employability skills. A student learns to apply and adapt the workplace skills that are necessary to understand and carry out different types of work, and that play a key role in lifelong learning.

Developing competence in workplace skills assists an individual to gain employment, and in the longer term, to progress within the organisation or industry area in which they are employed, and to contribute successfully to the organisation's objectives and to the wider community.

#### **QUALIFICATIONS ON OFFER**

There are three elements to the courses offered.

- 1. Short courses which are of one or two days duration and often certified by external sources.
- 2. State based School Curriculum and Standards Authority Courses which are accredited and used in determining entry to University and for High School Graduation.
- 3. National Recognized Training through the Training Accreditation Council, and certified according to the Australian Qualification Framework. These qualifications are recognised nationally and articulate with apprenticeships, traineeships and further training.

#### 1. SHORT COURSES

A wide variety of short courses are made available to all students attending the WA College of Agriculture at Harvey. Often, external providers are used to deliver specialist programs in one and two day blocks. Some of these are compulsory and some elective.

#### **Nationally Recognised Training**

- Chemical Handling Competencies certificated course delivered by accredited personnel to give participants knowledge on the safe use and disposal of chemicals used in the agricultural industry. Units achieved AHCCHM303 Prepare and Apply Chemicals, AHCCHM304 Transport, Handle and Store Chemicals.
- First Aid Course (compulsory) A two day course. On successful completion, participants receive a Senior First Aid Certificate from St John's Ambulance. Unit achieved HLTAID003 Provide First Aid.
- White Card Occupational Health & Safety (compulsory) A four hour course delivered by college staff detailing information about worksafe, duty of care, hazard identification and reduction in the building industry. Unit achieved CPCCWHS1001 Prepare to Work Safely in Construction Industry.
- Chainsaw Course (Elective) A two day course on servicing and using chainsaws for general use. Unit achieved AHCARB205A Operate and Maintain Chainsaws.
- WA Recreational Skippers Ticket (Department of Transport)

#### Other

- FarmSafe (compulsory) A course delivered by an accredited trainer on farm on entry to the college.
- **Artificial Insemination of cattle** (Provider Herd Improvement Service of WA) (Elective) A two day industry level course on the basics of artificial insemination in cattle.
- Front-End Loader Use Course (Elective) Provided by College personnel for general use of front-end loaders not industry accredited. Approximately one day.
- Ram Judging (Compulsory) Utilising experts in the field providing sufficient knowledge for judging at major state events.
- Heifer Selection (Elective) Delivered by College personnel for students interested in this
  area.
- Bronze Medallion (Elective) Offered at the beginning of each year of 2.5 day duration.
- **Shearer Training** (Elective) Offered during school holidays of three days duration to extend students interested in pursuing this career. Delivered and assessed by members of the profession.
- Water Wise Course (Elective) A two day course offered to students interested in irrigation or horticulture
- **Shearer and Shedhand Training** College organised with extensions provided for interested students.
- Low Stress Cattle handling (Elective) Provided by external groups.
- **Keys for Life** Compulsory for Year 10 to assist young drivers obtain the theory part of their WA drivers licence.

# 2. STATE QUALIFICATIONS – WEST AUSTRALIAN CURRICULUM West Australian Certificate of Education (WACE)

Specific information can be obtained from the School Curriculum and Standards Authority website.

#### To QUALIFY FOR THE WACE, a student must:

- Complete at least 20 semesterised course units.
  - At least twelve units must be from School Curriculum and Standards Authority (SCSA) developed courses
  - Up to eight unit equivalents may comprise SCSA endorsed programs or VET.
- Achieve 'C' grades or better
  - Across at least 14 course units if no SCSA endorsed programs or VET are included in the students' program, 6 of which must be studied in Year 12
  - SCSA endorsed programs or VET studied by the student reduces the number of C grades required.
- Meet the standard for English Language Competence
  - o Complete at least four units of English with one pair of units studied in Year 12
  - Meet the language competence standard Category 3 of the Online Literacy and Numeracy Assessment component.
- Select one pair of units from each of List A and List B course in Year 12.
- Achieve Category 3 in all Online Literacy and Numeracy Assessment components.
- Achieve an ATAR of at least 55 or a Certificate II qualification.

The General and ATAR Pathways on offer at the College are designed to enable achievement of WACE provided students perform at an appropriate level.

#### **Endorsed Programs**

These programs carry credit towards the achievement of the WACE. They include several of the short courses on the previous page.

All students in Year 11 & 12 gain credit for the WACE Course Workplace Learning (ADWPL) through observation and competence whilst working on the farm enterprises and linking with Certificate II in Agriculture.

#### 3. NATIONAL QUALIFICATIONS

The Australian Qualification Framework (AQF) established nationwide standards and nomenclature for the schools sector, the vocational education and training sector, and the higher education sector. In the vocational education and training sector, the AQF provides the following qualification levels:

Certificate I

Certificate II

Certificate III

Certificate IV

Diploma

Advanced Diploma (Then degree, post graduate qualifications etc)

The College delivers qualifications at Certificate I, II and III level.

Students completing Certificate II	Students Completing Certificate III
Demonstrate basic operational knowledge in a	Demonstrate some relevant theoretical
moderate range of areas	knowledge
Apply a defined range of skills	Apply a range of well developed skills.
Apply known solutions to a limited range of	Apply known solutions to a variety of <i>predictable</i>
predictable problems.	problems.
Perform a range of tasks where choice between a	Perform processes that require a range of well
limited range of options is required.	developed skills where some discretion and
	judgement is required
Access and record information from varied	Interpret available information using discretion
sources	and judgement.
Take limited responsibility for own outputs in work	Take responsibility for own outputs in work and
and learning.	learning.
	Take limited responsibility for the output of
	others.

#### **AQF QUALIFICATIONS ON OFFER**

WACA Harvey is a *Registered Training Organisation* (RTO number 50421). The qualifications delivered by the College are recognised Australia wide. Harvey provides courses from the following Training Packages leading to Certificate II in several industry areas and Certificate III in Agriculture. The College's registered scope of delivery is as follows.

Industry Area	Industry Sub Area	Code	Certificate Title
Metals &	Engineering	MEM20413	Certificate II in Engineering Pathways
Engineering		MEM20105	Certificate II in Engineering (statement of attainment only)
Construction,		CPC10111	Certificate I in Construction
Plumbing and Services	Construction	CPC20211	Certificate II in Construction Pathways
Furnishings	Furnishings	MSF20516	Certificate II in Furniture Making Pathways
		MSF20313	Certificate II in Furniture Making (statement of attainment only)
Automotive	Service and	AUR20716	Certificate II in Automotive Vocational Preparation
	Repair	AUR20516	Certificate II in Automotive Servicing Technology
Agriculture,	Agriculture	AHC20116	Certificate II in Agriculture
Horticulture		AHC30116	Certificate III in Agriculture
and		AHC20316	Certificate II in Production Horticulture
Conservation		AHC21216	Certificate II in Rural Operations
and Land		AHC21416	Certificate II in Wool Handling
Management		AHC21316	Certificate II in Shearing

#### **POST SECONDARY PATHWAYS**

#### **TAFE**

Every TAFE qualification has a set of minimum entry requirements which applicants must meet before an application will be considered. Generally, this will include points gained in relevant secondary subjects studied, minimum literacy requirements and appropriate work experience. TAFE applications are based on merit from a score derived using the above indicators. Information on the selection process for admission is available from the DTWD.

#### **UNIVERSITY**

Students graduating from the College generally enter University through an Australian Tertiary Aggregate Rank (ATAR) generated through the class based courses and external exams. Students wishing to generate an ATAR must enrol in the ATAR stream. Interested students are advised to contact the admissions office of individual universities for details of specific courses and entrance requirements.

Most universities offer alternate entry pathways for students into selected courses and these include Principal's recommendations and portfolio entrance.

Universities in WA that are available for undergraduate courses are;

- Curtin University
- Murdoch University
- University of Western Australia
- Edith Cowan University

Muresk Institute provides tertiary options. Refer to their website for current offerings.

Many universities based in the Eastern states offer tertiary courses based on agriculture and agribusiness. Two of these are University of Queensland (Diploma of Agriculture) and Charles Sturt University (Bachelor of Agribusiness).

#### TRADES QUALIFICATIONS ON OFFER

The Trades department at the College offers courses in four areas – Automotive, Engineering, Furnishing and Construction. These are practical courses made up of a series of units of competence. Students are given the opportunity to work with a vast range of resources in the relevant contexts.

Qualification delivery and assessment is programmed across 4 phases. The course is arranged in such a manner that a student could achieve Certificate II in each trade area after 2 phases in that area.

It is anticipated that each phase of the program would take approximately one semester and that students would work through the phases in a sequential manner. The entry point and the number of years a student chooses a trades area is flexible and this will determine the progress through the course and the opportunity of achieving multiple qualifications.

# AUR20716 CERTIFICATE II IN AUTOMOTIVE VOCATIONAL PREPARATION

Certificates II in Automotive-Vocational Preparation is a practical courses made up of a series of units of competency. Students are given the opportunity to work with Automotive vehicles/equipment/machines in a range of contexts. All qualifications are part of the Automotive Training Package (AUR).

It is anticipated that a student would achieve Certificate II in Automotive Vocational Preparation after 2 phases. Each phase of the program would take approximately one semester and that students would work through the phases in a sequential manner. The entry point and the number of years a student chooses Automotive as an option will determine the progress through the course and the chances of achieving the full Certificate II.

To achieve Certificate II in Automotive-Vocational Preparation all competencies listed below must be achieved.

Code	Units of Competence	Core / Elective
AURAEA002	Follow environmental and sustainability best practice in an automotive	Core
	workplace	
AURASA002	Follow safe working practices in an automotive workplace	Core
AURAFA003	Communicate effectively in an automotive workplace	Core
AURAFA004	Resolve routine problems in an automotive workplace	Core
AURTTK002	Use and maintain tools and equipment in an automotive workplace	Core
AURETR003	Identify automotive electrical systems and components	Core
AURLTA001	Identify automotive mechanical systems and components	Core
AURETR015	Inspect, test and service batteries	Elective
AURTTA002	Assist with automotive workplace activities	Elective
AURTTJ003	Remove and replace wheel and tyre assemblies	Elective
AURTTJ011	Balance wheels and tyres	Elective
AURTTE007	Dismantle and assemble single cylinder four-stroke petrol engines	Elective

Minimum Entrance Requirement Nil Cost Approx \$165 - \$320 per phase.

#### **Further Study**

Students choosing a career in the Automotive trades area may use some of these competencies towards further certificates.

# AUR20516 CERTIFICATE II IN AUTOMOTIVE SERVICING TECHNOLOGY

Certificates II in Automotive Servicing Technology is a practical courses made up of a series of units of competency. Students are given the opportunity to work with Automotive vehicles/equipment/machines in a range of contexts. All qualifications are part of the Automotive Training Package (AUR).

It is anticipated that a student would achieve Certificate II in Automotive Servicing Technology after 2 phases. Each phase of the program would take approximately one semester and that students would work through the phases in a sequential manner. The entry point and the number of years a student chooses Automotive as an option will determine the progress through the course and the chances of achieving the full certificate II.

To achieve Certificate II in Automotive Servicing Technology all competencies listed below must be achieved.

Code	Units of Competence	Core/Elective
AURAEA002	Follow environmental and sustainability best practice in an automotive workplace	Core
AURASA002	Follow safe working practices in an automotive workplace	Core
AURTTK002	Use and maintain tools and equipment in an automotive workplace	Core
AURTTE004	Inspect and service engines	Core
AURTTC001	Inspect and service cooling systems	Core
AURATA001	Identify basic automotive faults using troubleshooting process	Core
AURETR015	Inspect, test and service batteries	Core
AURTTA004	Carry out servicing operation	Core
AURTTD004	Inspect and service suspension systems	Core
AURTTD002	Inspect and service steering systems	Core
AURTTB001	Inspect and service braking systems	Core
AURTTQ001	Inspect and service final drive assemblies	Core
AURTTQ003	Inspect and service final drive (drivelines)	Core
AURAFA003	Communicate effectively in an automotive workplace	Elective
AURAFA004	Resolve routine problems in an automotive workplace	Elective
AURETK001	Identify, select and use low voltage electrical test equipment	Elective
AURTTJ011	Balance wheels and tyres	Elective
AURLTJ002	Remove, inspect, repair and refit light vehicle tyres and tubes	Elective
AURLTJ013	Remove, inspect and refit light vehicle wheel and tyre assemblies	Elective
AURTTF001	Inspect and service petrol fuel systems	Elective

Minimum Entrance Requirement Nil Cost Approx \$165 - \$320 per phase.

#### **Further Study**

Students choosing a career in the Automotive trades area may use some of these competencies towards further certificates.

#### **MEM20413 CERTIFICATE II IN ENGINEERING PATHWAYS**

Certificate II in Engineering Pathways is a practical course made up of a series of units. Students are given the opportunity to work with metal in a range of contexts. Certificate II in Engineering Pathways come from the Metals and Engineering National Training Package (MEM05).

To achieve Certificate II in Engineering Pathways all competencies listed below must be achieved.

Code	Units of Competence	Core/Elective
MEM13014A	Apply Principles of Occupational Health and Safety in the Work	Core
	Environment	
MEMPE005A	Develop a career plan for engineering and manufacturing	Core
	industry	
MEMPE006A	Undertake a basic engineering project	Core
MSAENV272B	Participate in environmentally sustainable work practices	Core
MEM16006A	Organise and communicate information	Elective
MEM16008A	Interact with computing technology	Elective
MEM18001C	Use Hand Tools	Elective
MEM18002B	Use Power Tools/Hand held operations	Elective
MEMPE001A	Use engineering workshop machines	Elective
MEMPE002A	Use electric welding machines	Elective
MEMPE003A	Use oxy-acetylene and soldering equipment	Elective
MSAPMSUP106A	Work in a team	Elective

Cost Approx \$240 - \$420 per phase plus additional for personal project materials.

#### **Further Study**

Students choosing a career in the Metals and Engineering area may use some of these competencies as entry level training to further certificates within the TAFE Metals Apprenticeship Program.

# MEM20105 CERTIFICATE II IN ENGINEERING (Statement of Attainment towards partial completion only)

The selection of units listed from Certificate II in Engineering provides a practical course. Students are given the opportunity to work with metal in a range of contexts. These units come from the Metals and Engineering National Training Package (MEM05).

The units of competence listed below will only form a Statement of Attainment towards partial completion of Certificate II in Engineering.

Code	Units of Competence	Core/Elective
MEM05012C	Perform Routine Manual Metal Arc Welding	Elective
MEM05049B	Perform routine gas tungsten arc welding	Elective
MEM05050B	Perform Routine Gas Metal Arc Welding	Elective
MEM07032B	Use workshop machines for basic operations	Elective

#### **Minimum Entrance Requirement Nil**

Cost Approx \$240 - \$420 per phase plus additional for personal project materials.

#### **Further Study**

Students choosing a career in the Metals and Engineering area may use some of these competencies as entry level training to further certificates within the TAFE Metals Apprenticeship Program.

#### **MSF20516 CERTIFICATE II FURNITURE MAKING PATHWAYS**

Certificate II in Furniture Making Pathways is a practical course made up of a series of units. Students are given the opportunity to work with a range of timber, manufactured boards and hardware in a range of contexts. Certificate II in Furniture Making Pathways is from the Furnishing Training Package (MSF) which is a training package for the furnishing industry.

To achieve Certificate II in Furniture Making Pathways all competencies listed below must be achieved.

Code	Units of Competence	Core/Elective
MSMENV272	Participate in Environmentally Sustainable Work Practices	Core
MSMPCI103	Demonstrate care and apply safe practices at work	Core
MSFGN2001	Make measurements and calculations	Core
MSFFP2001	Undertake a basic furniture making project	Core
MSFFP2002	Develop a career plan for the furnishing industry	Core
MEM16006A	Organise and communicate information	Elective
MEM16008A	Interact with computer technology	Elective
MSMSUP106	Work in a Team	Elective
MSFFP2006	Make simple timber joints	Elective
MSFFM2001	Use furniture making sector hand and power tools	Elective
MSFFP2005	Join materials used in furnishing	Elective
MSFFP2003	Prepare surfaces	Elective

Minimum Entrance Requirement Nil

Cost Approx \$205 - \$300 per phase plus additional for personal project materials

**Further Study** 

Certificate III in Furniture Making

# MSF20313 CERTIFICATE II FURNITURE MAKING (Statement of Attainment towards partial completion only)

The selection of units listed from Certificate II in Furniture Making provides a practical course Students are given the opportunity to work with a range of timber, manufactured boards and hardware in a range of contexts. These units come from the Furnishing Training Package (MSF) which is a training package for the furnishing industry.

The units of competence listed below will only form a Statement of Attainment towards partial completion of Certificate II in Furniture Making.

Code	Units of Competence	Core/Elective
MSFFF2004	Prepare surfaces for finishing	Elective
MSFFF2006	Apply surface coating by spray gun	Elective
MSFFM2003	Select and apply hardware	Elective
MSFFM2005	Join solid timber	Elective
MSFFM2006	Hand make timber joints	Elective

Minimum Entrance Requirement Nil

Cost Approx \$205 - \$300 per phase plus additional for personal project materials

Further Study
Certificate III in Furniture Making

#### **CPC10111 CERTIFICATE I IN CONSTRUCTION**

Certificate I in Construction is a practical course made up of a series of units. Students are given the opportunity to work with a range of building materials in a range of contexts. Certificate I in Construction and comes from the Construction, Plumbing and Services National Training Package (CPC08) which is a training package for the Construction Industry.

To achieve Certificate I in Construction all competencies listed below must be achieved.

Code	Units of Competence	Core/Elective
CPCCOHS2001A	Apply OHS requirements, policies and procedures in the construction industry	Core
CPCCWHS1001	Prepare to work safely in the construction industry	Core
CPCCCM1012A	Work effectively and sustainably in the construction industry	Core
CPCCCM1013A	Plan and organise work	Core
CPCCCM1014A	Conduct workplace communication	Core
CPCCCM2001A	Read and interpret plans and specifications	Core
CPCCCM2005B	Use construction tools and equipment	Core
CPCCVE1011A	Undertake a basic construction project	Core
CPCCCM1015A	Carry out measurements and calculations	Elective
CPCCCM2004A	Handle construction materials	Elective
CPCCCM2006B	Apply basic levelling procedures	Elective

#### **Minimum Entrance Requirement Nil**

Cost Approx \$205 - \$290 per phase.

#### **Further Study**

Students choosing a career in this area will use these competencies attained as entry level training to further certificates in the General Construction industry.

#### **CPC20211 CERTIFICATE II IN CONSTRUCTION PATHWAYS**

Certificate II in Construction Pathways is a practical course made up of a series of units. Students are given the opportunity to work with a range of building materials in a range of contexts. Certificate II in Construction Pathways come from the Construction, Plumbing and Services National Training Package (CPC08) which is a training package for the Construction Industry.

To achieve Certificate II in Construction Pathways all competencies listed below must be achieved.

Code	Units of Competence	Core/Elective
CPCCOHS2001A	Apply OHS requirements	Core
CPCCCM1012A	Work effectively and sustainably in the construction industry	Core
CPCCCM1013A	Plan and organise work	Core
CPCCCM1014A	Conduct workplace communication	Core
CPCCCM2001A	Read and interpret plans and specifications	Core
CPCCCM1015A	Carry out measurements and calculations	Core
CPCCCM2004A	Handle construction materials	Elective
CPCCCM2006B	Apply basic levelling procedures	Elective
CPCCBL2001A	Handle and prepare bricklaying and blocklaying materials	Elective
CPCCBL2002A	Use bricklaying and blocklaying tools and equipment	Elective
CPCCCA2002B	Use carpentry tools and equipment	Elective
CPCCCA2011A	Handle carpentry materials	Elective

#### **Minimum Entrance Requirement Nil**

Cost Approx \$205 - \$290 per phase.

#### **Further Study**

Students choosing a career in this area will use these competencies attained as entry level training to further certificates in the General Construction industry.

#### AGRICULTURE QUALIFICATIONS ON OFFER

The Farm section of the College has a range of qualifications on offer. These come from the Agricultural, Horticultural and Conservation and Land Management (AHC) training package. Students are given the opportunity to work with a range of machines, systems plants and animals in a range of contexts to cover the rage of units that make up the various qualifications on scope.

Qualification delivery and assessment is programmed across a 2-3 year period whilst the students are at the College. Students commence their training with Certificate II in Agriculture. Students should complete the Certificate II in Agriculture after two years allowing the third year to gain Certificate III in Agriculture or other Certificate II qualifications on offer. There is opportunity for students to gain multiple qualifications.

Students will be counselled on progress and selection on an individual basis by the College's support network and monitored through the reporting process.

#### **AHC20116 CERTIFICATE II IN AGRICULTURE**

To achieve Certificate II in Agriculture all competencies listed below must be achieved.

UNIT	Description	Core/Elective
AHCWHS201	Participate in work health and safety processes	Core
AHCWRK204	Work effectively in the industry	Core
AHCWRK209	Participate in environmentally sustainable work practices	Core
AHCCHM201	Apply chemicals under supervision	Elective (A unit)
AHCINF202	Install, maintain and repair fencing	Elective (A unit)
AHCINF203	Maintain properties and structures	Elective (A unit)
AHCLSK204	Carry out regular livestock observation	Elective (A unit)
AHCLSK205	Handle livestock using basic techniques	Elective (A unit)
AHCLSK206	Identify and mark livestock	Elective (A unit)
AHCLSK210	Muster and move livestock	Elective (A unit)
AHCLSK211	Provide feed for livestock	Elective (A unit)
AHCMOM202	Operate tractors	Elective (A unit)
AHCMOM203	Operate basic machinery and equipment	Elective (A unit)
AHCMOM205	Operate vehicles	Elective (A unit)
AHCPTH202	Carry out canopy maintenance	Elective (B unit)
AHCDRY201	Milk livestock	Elective (B unit)
ACMEQU202	Handle horses safely	Elective (B unit)
ACMEQU205	Apply knowledge of horse behaviour	Elective (B unit)

Minimum Entrance Requirement Nil

#### **AHC21216 CERTIFICATE II IN RURAL OPERATIONS**

To achieve Certificate II in Rural Operations all competencies listed below must be achieved.

UNIT	Description	Core/Elective
AHCWHS201	Participate in work health and safety processes	Core
AHCWRK204	Work effectively in the industry	Core
AHCWRK209	Participate in environmentally sustainable work practices	Core
ACMHBR201	Check and treat horses	Elective
AHCINF201	Carry out basic electric fencing	Elective
ACMEQU206	Perform horse riding skills at walk, trot and canter	Elective
AHCHBR203	Provide daily care for horses	Elective
AHCMOM204	Undertake operational maintenance of machinery	Elective
AHCMOM207	Conduct FEL operations	Elective
AHCLSK204	Carry out regular livestock observation	Elective
AHCLSK205	Handle livestock using basic techniques	Elective
AHCLSK217	Apply animal welfare principles to handling and husbandry of livestock	Elective
AHCLSK218	Ride educated horses to carry out basic stock work	Elective
AHCWOL201	Pen sheep	Elective
AHCWOL203	Carry out wool pressing	Elective

**Minimum Entrance Requirement** Nil

#### **AHC20316 CERTIFICATE II IN PRODUCTION HORTICULUTRE**

To achieve Certificate II in Production Horticulture all competencies listed below must be achieved.

UNIT	Description	Core/Elective
AHCWHS201	Participate in work health and safety processes	Core
AHCWRK209	Participate in environmentally sustainable work practices	Elective (A unit)
AHCCHM201	Apply chemicals under supervision	Elective (A unit)
AHCMOM203	Operate basic machinery and equipment	Elective (A unit)
AHCPHT201	Plant horticulture crops	Elective (A unit)
AHCPHT205	Carry out post-harvest operations	Elective (A unit)
AHCPHT214	Support horticulture crop harvesting	Elective (A unit)
AHCSOL202	Assist with soil or growing media samples	Elective (A unit)
AHCINF203	Maintain properties and structures	Elective (B unit)
AHCMOM202	Operate tractors	Elective (B unit)
AHCNSY202	Care for nursery plants	Elective (B unit)
AHCNSY203	Undertake propagation activities	Elective (B unit)
AHCPHT202	Carry out canopy maintenance	Elective (B unit)
MEM18001AC	Use hand tools	Elective (B unit)
AHCNSY201	Pot up plants	Elective (Import)

**Minimum Entrance Requirement** Nil

#### **AHC21416 CERTIFICATE II IN WOOL HANDLING**

To achieve Certificate II in Wool Handling all competencies listed below must be achieved.

UNIT	Description	Core/elective
AHCLSK217	Apply animal welfare principles to handling and husbandry of livestock	Core
AHCSHG202	Assist in Preparing for Shearing & Crutching	Core
AHCWHS201	Participate in work health and safety processes	Core
AHCWOL201	Pen sheep	Core
AHCWOL202	Perform Board Duties	Core
AHCWOL203	Carry out wool pressing	Core
AHCWRK202	Observe environmental work practices	Core
AHCWRK204	Work effectively in the industry	Core

**Minimum Entrance Requirement** Nil

Cost Approx \$50 - \$85 per phase.

#### **AHC21316 CERTIFICATE II IN SHEARING**

To achieve Certificate II in Shearing all competencies listed below must be achieved.

UNIT	Description	Core/Elective
AHCLSK217	Apply animal welfare principles to handling and husbandry of livestock	Core
AHCSHG201	Crutch sheep	Core
AHCSHG203	Shear sheep to novice level	Core
AHCSHG205	Grind combs and cutters for machine shearing	Core
AHCSHG206	Prepare hand piece and down tube for machine shearing	Core
AHCSHG210	Undertake basic shearing and crutching	Core
AHCWHS201	Participate in work health and safety processes	Core
AHCWRK204	Work effectively in the industry	Core
AHCWRK209	Participate in environmentally sustainable work practices	Core

**Minimum Entrance Requirement Nil** 

#### **AHC30116 CERTIFICATE III IN AGRICULTURE**

To achieve Certificate III in Agriculture all competencies listed below must be achieved.

UNIT	Description	Core/Elective
AHCWHS301	Contribute to OHS processes	Core
AHCWRK309	Apply environmentally sustainable work practices	Core
AHCBAC301	Conserve Forage	Elective (A unit)
AHCBAC302	Establish pastures and crops for livestock production	Elective (A unit)
AHCCHM304	Prepare & apply chemicals to control pests, weeds and diseases	Elective (A unit)
AHCCHM307	Transport, handle & store chemicals	Elective (A unit)
AHCINF303	Plan & construct conventional fencing	Elective (A unit)
AHCLSK301	Administer medication to livestock	Elective (A unit)
AHCLSK308	Identify and draft livestock	Elective (A unit)
AHCLSK309	Implement animal health control program	Elective (A unit)
AHCLSK311	Implement feeding plans for I/stock	Elective (A unit)
AHCMOM304	Operate machinery and equipment	Elective (A unit)
AHCMOM315	Operate chemical application machinery/equipment	Elective (A unit)
AHCPMG301	Control weeds	Elective (A unit)
AHCPMG302	Control plant pests & diseases	Elective (A unit)
AHCMOM305	Operate Specialised Machinery and Equipment	Elective (B unit)

**Minimum Entrance Requirement –** Nil, however the structure of the program at the College requires students to complete the Certificate II in Agriculture prior to commencing this qualification.

Cost Approx \$750 - \$800

#### **RECOGNITION OF PRIOR LEARNING (RPL)**

The recognition of prior learning (RPL) is a process that enables a person to have competencies developed through formal learning, non-formal learning, informal learning and experience to be assessed and certificated by an RTO. An important outcome of a competency-based system is that any person who can demonstrate the requirements of a unit of competency to the level of rigour required by the *Standards for Registered Training Organisations (RTOs) 2015* (Standards for RTOs) can be awarded that unit of competency (unit) without undertaking a training program.

RPL is a formal assessment process where all unit requirements are addressed, and the judgement is made using evidence that meets all the rules of evidence.

Students applying for RPL need to follow the steps detailed in the College's RPL information and application package which includes presenting evidence of past learning which supports the student's claim that they possess the vocational competence and can be assessed.

#### To Apply for RPL

- Prepare your supporting documents (evidence).
- Complete Application for Recognition of Prior Learning (RPL).
- Submit your Application for Recognition of Prior Learning (RPL) and supporting documentation to the College Principal. All documentation will be forwarded to an Assessor in the course in which you are enrolled.

Following assessment of your application and possible interview you will be officially notified of the outcome of your RPL Application. **If your application is successful** – the result will be recorded on your Statement of Academic Record. If you have received recognition for a unit from a Training Package qualification you will also receive a Statement of Attainment.

If your application is not successful – but you feel that you did demonstrate competency you are entitled to appeal. Further information on the appeal process and an **Application for Appeal Form** is available from the College Principal. You must appeal within four weeks of receiving formal notification of the Skills Recognition assessment outcome. You will be notified of the results of your appeal within fifteen working days of your **Application for Appeal Form**.

#### How Can I Improve My Chances of Getting My Skills Recognised Now & in the Future

Be aware of the different ways in which skills can be recognised as outlined in this package. Keep all documentation of courses that you have done, even those that have not been completed. Keep documentation of your work experience (ie: the dates when you worked, the name of the employer, the type of work that you did) and any other evidence to demonstrate the skills that you have gained. Ask WA College of Agriculture Harvey to allow you to undergo RPL, if you think you already have some of the skills for a qualification.

#### What If I Need Help or Advice

If you are not sure whether or not you should apply or you have other queries about units of competency or modules contact the College Principal. If you need support and guidance to compile your documentation contact your Training Officer or Teacher.

#### MUTUAL RECOGNITION

As a Registered Training Organisation, the WA College of Agriculture Harvey is obliged to recognise Statements of Attainment and Qualifications issued by other RTOs. Such qualifications can be used in fulfilment of the requirements for qualifications delivered at the college provided the specific Units of Competence are relevant and able to be transferred according to the rules of the particular Training Package.

Students with valid Statements of Attainment or Qualifications are to alert the college administration to their existence and provide original copies for analysis. Provided the qualifications are relevant and applicable under the rules of the particular Training Package, students will be given credit transfer for any Units of Competence they may already have been deemed competent in.

Staff at the college must recognize existing qualifications deemed relevant under the above process to be used for credit transfer for courses and qualifications on offer at the college.

#### **WORK EXPERIENCE**

Work Experience provides an invaluable opportunity for students to learn and develop some of the many skills they need for employment. There are many benefits to students:

- Develop work readiness skills- communication, work ethic, teamwork etc
- Opportunity to explore possible career pathways.
- Develop networks with industry

Opportunities are available in each year group as follows:

#### Year 10

- Week 9 Term 4 (compulsory) school managed
- Week 10 Term 4 (optional) school managed
- School Holiday breaks private arrangement

#### Year 11

• School Holiday breaks – private arrangement

#### Year 12

General Pathway Students who have been at the college for at least 1 year may elect to drop a day of Trades or Farm and undertake a day of Structured Workplace Learning. To be eligible students must meet the following criteria:

- Completed Certificate II in Agriculture and VETPIA (to drop a day of farm)
- Completed 4 trade qualifications if you have been at the College for two years, or completed 2 trade qualifications if you have been at the College for one year (to drop a day of trades)

In addition, students are encouraged to undertake work experience as a private arrangement during school holiday breaks.

Students undertaking off site work programs without College authorisation are not covered by the employment indemnity insurance of the Department of Education WA.

#### REPORTING

Students attending the College will receive an interim report at the completion of first term (and third term for Trades subjects), a semester report at the conclusion of first semester and an end of year report at the conclusion to the year. Parent teacher interview sessions are held twice each year coinciding with reporting periods.

Most learning is assessed using the Course of Study based assessment method for state based subjects, or through competencies for the National Training Package Certificates under the Australian Qualifications Framework.

Reports are provided for each learning area a student undertakes and outline the student's progress for that reporting period. The Report includes a teacher's comment, a final or predicted grade where appropriate and feedback in relation to the child's attitude, behaviour and effort.

#### **Grading Procedure- Class subjects**

Students are ranked on the basis of assessment tasks completed and then grade related descriptors used to allocate grades. Semester 1 reports will record a final grade for all subjects completed during the semester but a predicted grade will be suggested for year long subjects. Depending on student effort and application, these predicted grades may alter at the end of year reporting session.

A Statement of Results will be issued at the end of year 11 and 12 when grades are submitted to the Schools Standards Assessment and Curriculum Authority.

#### **Training Packages**

Each industry area has a training package to identify the skills required in their particular field.

Students complete units of competence towards a skill set or qualification. They must demonstrate competence in all the elements of each competency as required by the respective training package. This usually takes place over a period of time.

The Academic Record issued at the end of Year 12 or when a student leaves the College only records completed competencies. Certification of a full qualification can take place when the packaging rules have been met for the respective qualification. A Record of Achievement and Certificate is issued when the student completes the full qualification.

A Statement of Attainment is issued for incomplete qualifications.

#### SUBJECT SELECTIONS AND COURSE COUNSELLING

Subject selections and course counselling are undertaken during term 3 & 4 each year. A one on one counselling process may be used to review student performance to assist in identifying suitable pathways for successive years. These can be arranged in consultation with the Vice Principal. Parents will be provided with copies of the subject selection documentation for discussion with their child and final approval.

#### FEEDBACK AND APPEALS POLICY

The College will ensure that candidates are provided with feedback which should include the assessment outcome, recommendations for further training and appeals and re-assessment options.

The College has an appeals policy in place which allows candidates to challenge the assessment decision and enables them to be re-assessed. The grounds for an appeal are:

- ☐ The judgement as to whether competency has been achieved and demonstrated was made incorrectly and/or
- ☐ The judgement was not made in accordance with the assessment plan

APPEALS POLICY - Competency Based Assessment:

Applications for appeal must be made within 7 days of the assessment outcome being known in writing to the Line Manager with supporting grounds of appeal.

The outcome of the appeal will be made in writing to the candidate and either the original judgement stands, or a re-assessment will be arranged. This may occur with the original assessor, or an independently appointed one.

In the event that the Appellant is still dissatisfied with the appeal outcome, or if no response to their initial appeal has been received, the Appellant should register an appeal with the relevant State or Territory Training Authority. In Western Australia, this is the Training Accreditation Council (TAC)

APPEALS POLICY - School Curriculum and Standards Authority Based Assessment.

Please refer to the Assessment section in the College Handbook and SCASA Guidelines for appeals against grades awarded for WACE subjects. See Head of Department -Class

#### CHANGING COURSES

Students entering the College in Year 11 or 12 will select and commence their course from the start of the year.

Changes of Course Applications are available from the Vice Principal.

Minimum times to achieve semester based Courses of Study are set by the School Curriculum and Standards Authority and final dates set to change courses will be adhered to.

Before a change in course can occur, signatures must be received from the parent, the student, the Business Manager (for alteration to fees), Farm Manager and Teacher in Charge of Trades, which is then forwarded to the Vice Principal for academic course changes and form group movement.



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