UPPER SCHOOL CURRICULUM

2017

A STRONG COMMUNITY, CREATING OPPORTUNITIES FOR PERSONAL EXCELLENCE
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PLANNING FOR THE FUTURE

COURSES ON OFFER

VOCATIONAL EDUCATION AND TRAINING IN SCHOOLS (VETiS)

GOLDFIELDS INSTITUTE OF TECHNOLOGY

YEAR 11 AND 12 CURRICULUM COURSES

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Web: www.esperanceshs.wa.edu.au
INTRODUCTION

Apex Teen Fashion Awards

Athletic Carnival Faction Winners

Girls Basketball Country Week Team

Cliffs Koolyanobbing Mine Site excursion
The purpose of this handbook is to provide the information that will enable students and their parents/carers to make informed and realistic decisions about the pathways that students can pursue in Upper School.

History tells us that our students will choose, in general, one of the following options when they finish school – employment (with or without additional training), training through a Registered Training Organisation (with or without employment) or university education (with or without employment).

Therefore, the school has two pathways to enable the transition to these destinations. The entry requirements vary significantly. As a result, the structure and obligations within each pathway are also different.

Please note: All information in this booklet was correct at the time of printing, but may change.
Upper School Pathways

This graph summarises the chosen post-school destinations of our 2013 Year 12 students into 2014.

These students participated in the Post-School Destinations survey and represent 87% of the second semester year group.

**University**
This may include the University of Western Australia, Murdoch University, Curtin University of Technology, Edith Cowan University and the University of Notre Dame. This accounted for about 38% of year 12 school leavers in WA in 2013.

**TAFE and further training**
There are 14 metropolitan, five regional and 10 country regional campuses of TAFE. This accounted for about 40% of year 12 school leavers in WA, although another 5% are involved in apprenticeships and traineeships.

**Employment**
About 15% of school leavers entered the workforce in 2014.
Although the pathways on offer in upper school have differing structures, the school’s intention is that all students achieve an Australian Tertiary Admissions Rank (ATAR) or a Certificate II in their chosen area of study by the end of year 12. Ideally all students will also achieve their West Australian Certificate of Education (WACE).

### WACE REQUIREMENTS

**All students need to:**

#### Pass the Online Numeracy and Literacy Assessment (OLNA) tasks

Year 10 students, unless exempted, undertook these assessments in Term 1. The assessments are designed to allow students to *demonstrate a minimum standard of literacy and a minimum standard of numeracy based on the skills regarded as essential for individuals to meet the demands of everyday life and work in a knowledge-based economy.*

Students will have the opportunity to re-sit these tests each semester until the end of Year 12 in order to pass.

#### Demonstrate breadth and depth

Students will complete a minimum of 20 course units (or the equivalent). This requirement must include at least:
- 10 year 12 units, or the equivalent
- two completed year 11 English units and one pair of completed year 12 English units
- one pair of year 12 course units from each of List A (arts/English/languages/social sciences etc) and List B (mathematics/science/technology etc).

#### Achievement standard

Students will be required to achieve 14 C grades in their year 11 and year 12 units, including at least six C grades in year 12 units.

There will be provision for students to gain unit equivalence by completing VET qualifications:
- Certificate II = two year 11 and two year 12 units
- Certificate III or higher = two year 11 and four year 12 units.

<table>
<thead>
<tr>
<th>Students aspiring to go to university</th>
<th>Vocational students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete four (or more) year 12 ATAR courses</td>
<td>Complete a Certificate II or higher</td>
</tr>
</tbody>
</table>

Further information is available from the School Curriculum and Standards Authority website at [http://www.scsa.wa.edu.au](http://www.scsa.wa.edu.au).
How to be in a position to apply for university at the end of 2018

Students have a choice of five universities in Western Australia.

The University of Notre Dame is an independent Catholic University offering courses through its Schools of arts and sciences, business, law, nursing and midwifery, education, philosophy and theology, medicine and health. The selection process for Notre Dame is based on:

- personal qualities, motivation and academic potential
- contribution to church, school and community life
- academic records (including TER/ATAR)
- interview.

The University of Western Australia, Curtin University of Technology, Edith Cowan University and Murdoch University are public universities. They offer a wide range of courses and use a relatively common selection system involving four essential entrance requirements.

1. **Satisfying Western Australian Certificate of Education (WACE) requirements**
   Generally, students will complete two years of senior secondary study, after which they are awarded the WACE. This is based on the assumption that students will complete year 12 as their final year of schooling (see WACE requirements information on page 5).

2. **Competence in English**
   For university admission purposes, a student demonstrates competence in English by achieving the prescribed standard (generally a scaled score of at least 50) in one of the WACE courses: English ATAR, Literature ATAR or English as an Additional Language/Dialect (EALD) ATAR, through the year 12 results they obtain in any calendar year.

   English as an Additional Language/Dialect can only be taken by students who meet eligibility criteria set by the Curriculum Council. A number of concession arrangements are in place for those students who may fail to show English competence according to the criteria described above. Further information is available on the Tertiary Institutions Service centre’s website at [http://www.tisc.edu.au](http://www.tisc.edu.au).

3. **An Australian Tertiary Admission Rank (ATAR)**
   The Australian Tertiary Admission Rank is used to rank students on the basis of their academic performance relative to all other WA students of year 12 school leaving age, as well as the number of people of year 12 school leaving age in the population of this state. The ATAR ranges between zero and 99.95. An ATAR of 75.00 indicates that a student has an overall rating equal to or better than 75% of the year 12 school leaving age population in Western Australia.

   The ATAR also takes into account the number of students with a Tertiary Entrance Aggregate (TEA). The TEA is calculated by adding a student’s best four scaled scores. These may be in any combination of courses and/or past TEE subjects but no course or past TEE subject can be counted more than once.

   Please note that there are unacceptable course combinations where the scores from both courses/subjects cannot be used. Those relevant to Esperance Senior High School are:

   - English with Literature
   - Design: Photography with Design: Technical Graphics. This is one subject studied in two contexts. There is only one exam.

   The scores from Human Biology and Biology can now both be used in the calculation of an ATAR. Another recent change is the removal of the option of sitting subjects as a private candidate.

**ATAR Required for University Courses**

Depending on student demand and the number of places available, the minimum ATAR required for selection into a particular course will vary from university to university and from year to year. For example, there are a very limited number of places available in the veterinary studies course at Murdoch University and the student demand is high. The result is that a high ATAR (and associated TEA) is required. However, for other courses such as Commerce at Curtin University, there are many more places available and therefore the cut-off ATAR required to get into this course is much lower.
This table provides a sample of courses and the minimum ATAR that was required in past years to gain entry into these courses on the basis of first round offers.

<table>
<thead>
<tr>
<th>ATAR RANGE</th>
<th>COURSE</th>
<th>UNIVERSITY</th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>95.0+</td>
<td>Philosophy</td>
<td>UWA</td>
<td>99.75</td>
<td>99.65</td>
<td>99.80</td>
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<tr>
<td></td>
<td>Law – Assured Pathway</td>
<td>UWA</td>
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<td>98.00</td>
<td>98.00</td>
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<tr>
<td></td>
<td>Veterinary Science</td>
<td>Murdoch</td>
<td>98.00</td>
<td>97.70</td>
<td>97.40</td>
</tr>
<tr>
<td>90.10 – 95.0</td>
<td>Medical Imaging Science</td>
<td>Curtin</td>
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<td>88.35</td>
<td>90.35</td>
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<tr>
<td></td>
<td>Actuarial Science</td>
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<td>Midwifery</td>
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<td>Physiotherapy</td>
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<tr>
<td></td>
<td>Laws</td>
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<td>85.00</td>
<td>80.00</td>
<td>80.00</td>
</tr>
<tr>
<td></td>
<td>Nursing/Midwifery Double Degree</td>
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<td>85.00</td>
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<td>Curtin</td>
<td>80.10</td>
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<td>75.15</td>
</tr>
<tr>
<td>80.00</td>
<td>Computer Systems / Computer Science</td>
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<td>80.00</td>
<td>80.00</td>
<td>80.25</td>
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<td>Arts</td>
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<td>Commerce</td>
<td>UWA</td>
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<tr>
<td></td>
<td>Design</td>
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<td>80.00</td>
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<tr>
<td></td>
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<td></td>
<td>Community Development</td>
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<td>Philosophy</td>
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<tr>
<td></td>
<td>Sustainable Development</td>
<td>Murdoch</td>
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<td>86.75</td>
<td>70.00</td>
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<tr>
<td></td>
<td>Forensic Science and Toxicology</td>
<td>Murdoch</td>
<td>72.30</td>
<td>72.15</td>
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<tr>
<td></td>
<td>Molecular Biology</td>
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<tr>
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<td>Animal Science</td>
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<tr>
<td>70.00</td>
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<td>Commerce</td>
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<tr>
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<td>Health Promotion</td>
<td>Curtin</td>
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<td>Primary Education</td>
<td>Curtin</td>
<td>70.00</td>
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<td>70.00</td>
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<td>Business Administration</td>
<td>Curtin</td>
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<td></td>
<td>Fashion</td>
<td>Curtin</td>
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<tr>
<td></td>
<td>Aviation</td>
<td>ECU</td>
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<td>70.00</td>
<td>65.00</td>
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<tr>
<td>60.10 – 69.9</td>
<td>Primary Education</td>
<td>ECU</td>
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<td>65.00</td>
<td>65.00</td>
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<td>Information Technology</td>
<td>ECU</td>
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<td>Psychology</td>
<td>ECU</td>
<td>55.00</td>
<td>63.55</td>
<td>55.00</td>
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<tr>
<td></td>
<td>Hospitality and Tourism Management</td>
<td>ECU</td>
<td>55.00</td>
<td>57.70</td>
<td>69.90</td>
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<tr>
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<td>Registered Nursing</td>
<td>ECU</td>
<td>55.00</td>
<td>55.00</td>
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<tr>
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<td>Health Science</td>
<td>ECU</td>
<td>55.00</td>
<td>55.00</td>
<td>55.00</td>
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<tr>
<td></td>
<td>Exercise and Sports Science</td>
<td>ECU</td>
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<td>55.00</td>
</tr>
<tr>
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<td>Business</td>
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<td>55.00</td>
<td>55.00</td>
<td>55.00</td>
</tr>
<tr>
<td></td>
<td>Computer Science</td>
<td>ECU</td>
<td>55.00</td>
<td>55.00</td>
<td>55.00</td>
</tr>
</tbody>
</table>

Considerations:
- Data is for Perth campuses only. Cut-off scores in country campuses are generally lower.
- Cut-off scores vary for different campuses of the same university.
- Second round offers were generally lower, especially at the bottom end of ATARs. Students have received second round offers with a TER (ATAR) as low as 55.
- All courses have a high level of academic rigour and place similar demands on students. Courses with a low cut-off rank should not be seen as easier options.
4. Prerequisite and desirable subjects
Various university courses require a background in certain subjects at year 12 level. Some courses may have prerequisite subjects; others may have preferred or highly recommended subjects. To find out more about these requirements, consult the *University Admission 2018* booklet which is available through the TISC website at [http://www.tisc.edu.au/](http://www.tisc.edu.au/) or the specific university handbook.

Other forms of university entry
Many universities have developed alternative entry procedures such as preparation programs and portfolio pathways. They also accept qualifications completed through State Training Providers (STPs) (previously known as TAFEs). In addition there are instances where schools can nominate one student (usually the highest scoring student) for entry to a university course. These options only apply to a small number of students and provide access to a limited range of courses.

Factors to consider when choosing the ATAR pathway

- What option(s) would you like to have at the end of your time in high school?
- What qualifications do you need for the career(s) you would like to pursue?
- What is your academic background?
- What pathways are you in for English, Science and Mathematics?
- What were your Semester 1 exams results? Where do you rank in your year group?
- Are you prepared to do up to three hours of homework, assignment work, study and revision for each ATAR subject, each week, for the next two years?
How to be in a position to undertake training through a Registered Training Organisation (RTO) at the end of 2018

Entry requirements for Australian Qualification Framework (AQF) courses through a RTO, are very different to the criteria used for entry to university. Essentially all AQF courses fall into one of two categories:

- courses that require applicants to meet entrance requirements; and
- competitive courses that require applicants to meet entrance requirements, plus address selection criteria. Approximately 30% of the courses fall into this category.

Entrance requirements describe the minimum level of achievement required for a student to obtain entry into a course. In some instances it could be that the requirement is met through a lower AQF qualification. For example, a Certificate III in Disability Work will enable a person to enrol in Certificate IV in Disability Work.

In addressing the selection criteria, of more competitive courses, an applicant is given a score out of 100 points. A maximum of 29 points can be scored on the basis of participation in a previous AQF course on a lower level course. Up to 29 points can be scored on the basis of work experience/employment. The final 42 points can be awarded on the basis of secondary education/skill development. The secondary education component is scored on the best three two-unit course combinations; one being an English subject or a portfolio demonstrating evidence of skill development.

Students contemplating AQF courses are strongly advised to check the TrainingWA website. Students who wish to enrol in competitive courses need to examine the specific entrance criteria very carefully in order to optimise their chances of gaining a place. Additionally, the website will indicate whether an interview, folio or skills test is required.

The calculation of an applicant’s entry score is done separately for each course. State training providers do not calculate a score that can be used by a student to apply for all courses. This is because the weighting given to work experience and/or previous qualifications will vary between AQF courses and some courses will involve an interview or folio submission.

It is not possible to make general comments about the scores that are required for entry into AQF courses, other than to say that the cut–off scores and demand for places varies from course to course and from year to year.

Registered Training Organisation/Australian Qualification Framework to university transfer

It is becoming increasingly viable for students to transfer from AQF courses to a range of university courses. Students may consider the option of completing an AQF qualification and then using this as the basis for an application for a university undergraduate course. Typically the completed AQF course would be a Certificate IV or higher.
Esperance Senior High School’s Vocational Education and Training (VET) pathway

Esperance Senior High School has eleven AQF certificates on offer in year 11 and year 12. Certificate II are offered in the following areas:

- Agriculture
- Automotive
- Building and Construction
- Business
- Children’s Services
- Community Activities
- Hairdressing and Beauty
- Hospitality
- Information Technology
- Metals and Engineering
- Skills for Work.

Students who take part in one of these courses put themselves in a position from where they can start their progression through the AQF pathway. Each of the school’s VET courses incorporates an AQF Certificate as a component of the course. As well, each course requires completion of Workplace Learning.

Factors to consider when choosing the vocational pathway

To be successful in a VET course, students will need to demonstrate qualities such as:

- reliability
- enthusiasm
- initiative
- a positive approach to learning
- the capacity to absorb and respond to advice
- a desire to produce quality work
- regular attendance at the work place.

There is a selection process for the limited number of VET places available. This is based upon:

- interview
- academic achievement
- attendance
- behaviour
- program suitability.
Key contacts

School Curriculum and Standards Authority  
303 Sevenoaks Drive CANNINGTON WA 6017  
Phone: 9273 6301  
Website: www.curriculum.wa.edu.au

Tertiary Institutions Service Centre  
Level 1, 100 Royal Street EAST PERTH WA 6004  
Phone: 9318 8000  
Website: www.tisc.edu.au

The University of Western Australia  
35 Stirling Highway CRAWLEY WA 6009  
Phone: 6488 2477/Country Callers: 1800 653 050  
Website: www.uwa.edu.au

Edith Cowan University  
270 Joondalup Drive JOONDALUP WA 6027  
Phone: 134 328  
Website: www.ecu.edu.au

Curtin University  
GPO Box U1987 PERTH WA  6845  
Phone: 1300 CU 1000  
Website: www.curtin.edu.au

Murdoch University  
The Student Centre  
South Street MURDOCH WA 6150  
Phone: 9360 6000  
Website: www.murdoch.edu.au

University of Notre Dame  
PO Box 125 FREMANTLE WA 6959  
Phone: 1800 640 500  
Website: www.nd.edu.au

TRAINING WA  
Website: www.dtwd.wa.gov.au
### Year 10 pathways to Year 11 pathways - 2016 into 2017

**English, Humanities and Social Sciences, Mathematics and Science**

#### ENGLISH

<table>
<thead>
<tr>
<th>2016 Pathway</th>
<th>Teacher (Class No)</th>
<th>Options in Year 11, 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathway 1</td>
<td>Mrs Liz Elliott (1) Mrs Dilyss Lee (2)</td>
<td>A and high B students could select Literature A, B and high C students could select English ATAR C students should select English General</td>
</tr>
<tr>
<td>Pathway 2</td>
<td>Miss K Ferguson (3)</td>
<td>B and high C students could select English ATAR All other students should select English General</td>
</tr>
<tr>
<td>Pathway 2</td>
<td>Mrs Dilyss Lee (4) Mrs I Tolman/Mr J England (5) Mrs Dale Rooney (6)</td>
<td>Students should select English General</td>
</tr>
</tbody>
</table>

#### HUMANITIES AND SOCIAL SCIENCES

<table>
<thead>
<tr>
<th>2016 Pathway</th>
<th>Teacher (Class No)</th>
<th>Options in Year 11, 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathway 1</td>
<td>Scanlon/Cassam/Heggie (1) Cassam/Heggie/Scanlon (2) Day/Scanlon/Cassam (3)</td>
<td>All should be capable of TEE Humanities and Social Sciences – Set 1 are the real high flyers</td>
</tr>
<tr>
<td>Pathway 2</td>
<td>Haclon/Scanlon/Heggie (4) Heggie/Haclin/Scanlon (5) Scanlon/Heggie/Haclin (6)</td>
<td>A small number of students may be capable of TEE – to be based on the classroom teacher’s recommendation</td>
</tr>
</tbody>
</table>

#### MATHEMATICS

<table>
<thead>
<tr>
<th>2016 Pathway</th>
<th>Teacher (Class No)</th>
<th>Options in Year 11, 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pathway 1</td>
<td>Mr S Hill/Mr M Zani (1)</td>
<td>Very successful students in this class (top 9 or 10) will cope with Mathematics Specialist and Mathematics Methods. The remainder will cope with Mathematics Method on its own.</td>
</tr>
<tr>
<td></td>
<td>Miss Pitchers (2)</td>
<td>The top 5 students will cope with Mathematics Methods. The remainder will cope with Mathematics Applications</td>
</tr>
<tr>
<td>Pathway 2</td>
<td>Miss M Lum (3)</td>
<td>Mathematics Applications</td>
</tr>
<tr>
<td>Pathway 3</td>
<td>Miss M Lum (4) Mr M Zani (5) Miss T Smythe (6)</td>
<td>Mathematics Essentials for students who pass OLNA. Mathematics Foundations for those students who do not pass OLNA.</td>
</tr>
</tbody>
</table>

#### SCIENCE

<table>
<thead>
<tr>
<th>2016 Pathway</th>
<th>Teacher (Class No)</th>
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</thead>
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<tr>
<td>Pathway 1</td>
<td>Term 3 teacher Mr A Maccan (1) Mrs H Maree (2) Mr P Kruger (3)</td>
<td>All students who achieved an A or B in Biological and Chemical Sciences should cope with any of these options: Chemistry, Biology or Human Biology. All students who achieved an A in Physical Sciences should cope with the option: Physics.</td>
</tr>
<tr>
<td>Pathway 2</td>
<td>Term 3 teacher Mrs H Maree (4) Mrs K Polkinghorne (5) Ms K Sachse (6)</td>
<td>Students in these classes are not in a position to take Chemistry or Physics. All students who achieved an A or B in Biological Sciences should cope with Biology and Human Biology. Students who don’t need/want TEE Science can take Integrated Science.</td>
</tr>
</tbody>
</table>
**Upper School courses offered for 2017**

Whether or not a course is eventually offered will depend upon the level of student interest, availability of resources and personnel and timetable constraints.

**Subject code explanation**

- **FESUB**: (F - foundations, E - year 11, SUB - subject code - **no** exam)
- **FTSUB**: (F - foundations, T - year 12, SUB - subject code - **no** exam)
- **GESUB**: (G - general, E - year 11, SUB - subject code - **no** exam)
- **GTSUB**: (G - general, T - year 12, SUB - subject code - **no** exam)
- **AESUB**: (A - ATAR, E - year 11, SUB - subject code - **exam**)
- **ATSUB**: (A - ATAR, T - year 12, SUB - subject code - **exam**)

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**Vocational Programs**

A Vocational Education and Training in Schools (VETiS) program allows a student to learn about industry pathways and gain skills that are relevant to industry needs. Success in a VETiS program can lead to pathways such as immediate employment and further education through TAFE or university studies.

Enrolling in a VETiS program allows a student to attain:
- nationally recognised qualifications or partial qualifications endorsed by industry
- real life experiences in a workplace
- a Western Australian Certificate of Education (WACE)

VETiS programs at Esperance Senior High School are comprised of the following components:
- Certificate II and/or III
- Workplace Learning
- English
- Mathematics
- General and/or industry specific subjects.

The Workplace Learning 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 and contribute within the organisation or industry area in which they are employed.

**APPLICATIONS FOR VETiS PROGRAMS**

Students who have expressed interest in enrolling in a VETiS program should have already attended a pre-counselling session and gained a good insight into what is expected. On this basis, students who have decided to pursue a VETiS program do not need to attend a standard counselling session in term 3.

They need to use the VETiS application pack which is provided on their USB or download the package from the school’s intranet. The criteria against which they will be assessed is at the back of the application form. It is important that they prepare for their VETiS interview using the criteria as a guide, as they will be ranked against it.

Students should have at least three VETiS industry preferences and arrange more than one VETiS specific interview to enhance their chances of gaining a place in one of their three preferences. They need to bring their completed VETiS application pack, resume and Semester 1 Report (or copies for additional interviews). While it is not compulsory that parents/carers attend, it is highly recommended.

After the interview process, students are notified of the outcome in writing. Unsuccessful students are also given feedback on their interview to assist them with later applications. They may also be placed on a waiting list for positions that may become available.

Some students may be offered places on a trial basis and their placement reviewed from time to time to assess their suitability to the course.
Vocational Programs

The VETiS streams offered at Esperance Senior High School are listed in the table below. Please note that VETiS streams will only run if class sizes are viable. If you have any queries in relation to any of the courses, please feel free to contact any of the following ESHS staff.

<table>
<thead>
<tr>
<th>VETiS Coordinator</th>
<th>Mrs Cynnamon Harper</th>
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<tr>
<td>Agriculture</td>
<td>Mr Daniel Pollard</td>
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<td>Automotive</td>
<td>Mr Keith Fitzpatrick</td>
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<td>Building and Construction</td>
<td>Mr Kelby Myers</td>
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<td>Business</td>
<td>Mrs Cynnamon Harper, Ms Natalie Wallace</td>
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<td>Children’s Services</td>
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<td>Hairdressing and Beauty</td>
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<tr>
<td>Hospitality</td>
<td>Mr Greg Forster</td>
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<tr>
<td>Information Technology</td>
<td>Mrs Hillary Duffy</td>
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<tr>
<td>Metals and Engineering</td>
<td>Mr Andrew Hackwell</td>
</tr>
<tr>
<td>Skills For Work</td>
<td>Mr Beau Scanlon</td>
</tr>
</tbody>
</table>
Agriculture

PRIMARY INDUSTRY STUDIES - YEAR 11 AND YEAR 12
This program is a full time vocational course designed to provide practical background principles and operations of a working farm. Students spend approximately three days per week on the farm learning and practicing a structured range of farm skills, such as the operation and management of stock, crops and machinery. Demonstrations by the farm’s technical officers are regularly given on specific aspects of farm practice. Class work and farm work is coordinated to consolidate theoretical studies in a practical manner. The course is conducted at Esperance Farm Training Centre and provides entry level training into careers in farming, land care, horticulture, contracting, agricultural service industries, veterinary nursing, and mining.

The subjects in Year 11 include:
Units of Competency working towards Certificate II in Agriculture
• ADWPL Workplace Learning
• GEENG English General
• G1MAE Mathematics General
• GEAPS Animal Production Systems
• GEPPS Plant Production Systems
• GEMDTM Materials Design and Technology – Metals
• CESGR General Rescue Skills/CESFS Fire Safety Management Skills (alternate years)
• CESSR Search and Rescue Management Skills/CESFA First Aid and Emergency Care Management Skills (alternate years)

The subjects in Year 12 include:
• Certificate II in Agriculture
• ADWPL Workplace Learning
• GTENG English
• GTAPS Animal Production Systems
• GTPPS Plant Production Systems
• GTMDTM Materials Design and Technology – Metals
• CESGR General Rescue Skills/CESFS Fire Safety Management Skills (alternate years)
• CESSR Search and Rescue Management Skills/CESFA First Aid and Emergency Care Management Skills (alternate years)
• OLNA Mathematics/English

SCHOOL BASED TRAINEESHIPS IN AGRICULTURE
This is a one year, full time course where students complete a combination of 16 weeks at Esperance Farm Training Centre and approximately 16 weeks in paid employment as a trainee. The students are enrolled at school in the following Curriculum Council subjects:
• Certificate II in Agriculture
• ADWPL Workplace Learning
• GTENG English
• GEMAE Mathematics
• GEPPS Plant Production Systems
• GEAPS Animal Production Systems

To complete the requirements of a traineeship, students will also be enrolled in a Certificate II program with the Goldfields Institute of Technology and will complete their certificate alongside their Year 12 subjects. Places are dependent on gaining a traineeship and students will be subject to a selection interview. Where possible, students are encouraged to begin their traineeship in year 11. Some students may also achieve a partial completion of their Certificate III In Agriculture.

Please note the standard of dress is long darkblue work pants, long sleeve 100% cotton Hi Vis shirts (yellow upper and dark blue lower), blue Farm Training Centre jumber, steel cap safety boots and safety glasses.
Automotive

The automotive industry is one of the most technologically rapidly developing areas of the service and manufacturing industries. With ongoing developments being made, particularly in the area of electronics and computer controls, employers are looking for candidates who are passionate about the industry and are capable of being life-long learners in order to keep up with the continual development of automotive technologies.

This subject is a full-time vocational course primarily designed for students who want to pursue a career in one of the many automotive industries but would also be helpful to those who wish to work in mining and agriculture. The theoretical and practical components of the courses cover basic mechanical and electrical systems, their functions, maintenance, diagnostics and repairs; as well as Workplace Health and Safety and workshop practices. As the range of industries in the automotive industry is diverse, students also develop skills in designing, welding and fabrication.

Year 11 students will complete three days per week at Esperance Senior High School at the Esperance Regional Trades Training Centre, one day per week at Esperance South Regional TAFE commencing Certificate II in Automotive Vocational Servicing Technology Preparation and one day per week at work placement (subject to negotiation with TAFE). Year 12 students will complete three days per week at the Esperance Regional Trades Training Centre, two days per week at work placement, and five week-long training blocks at South Regional TAFE completing Certificate II in Automotive.

In the Workplace Learning component, students develop their work-readiness through skills, knowledge and understandings along with self-management and interpersonal skills gained by working in local business. This gives them the opportunity to develop a reputation as person who would be an asset to an employer and/or business and may lead to employment opportunities, although there is no obligation on the employer as they generously provide a voluntary service, subject to the satisfactory performance of the student. The course provides entry level training into careers in mechanical and metal trades, mining, agriculture and associated service industries.

The subjects in Year 11 include:
- Certificate II in Automotive Servicing Technology (part 1)
- ADWPL Workplace Learning
- GEENG English
- G1MAE General Mathematics
- GEAET Automotive Engineering Technology
- GEMDTM Materials Design and Technology – Metal

The subjects in Year 12 include:
- Certificate II in Automotive Servicing Technology (part 2)
- ADWPL Workplace Learning
- GTENG General English
- GTAET Automotive Engineering Technology
- GTMDTM Materials Design and Technology – Metal
- OLNA Mathematics/English

Please note the standard of dress at Esperance Regional Trades Training Centre for Year 11 and 12 students and at TAFE Certificate II Automotive students is long dark blue work pants, long sleeve Hi Vis work shirts (yellow upper and dark blue lower), safety boots and safety glasses.
Building and Construction

The Building and Construction General course encompasses the skills and applications of many of the trades and professions in the construction industry and provides entry level training into careers in the construction industry. Students have the opportunity to develop and practise skills that contribute to creating a physical environment, while acquiring an understanding of the need for sustainability, and an awareness of community and environmental responsibilities. Students will learn and practise building processes and technologies, including principles of design, planning and management.

There is a strong focus on employability skills and preparing students for a wide range of apprenticeship and traineeship opportunities within the construction field. Students will complete three days per week at Esperance Senior High School at the Esperance Regional Trades Training Centre, one day per week at the Esperance South Regional TAFE completing Certificate II in Building and Construction over two years, and one day per week at Workplace Learning with an employer in the construction field.

The subjects in Year 11 include:
- Certificate II in Building and Construction (Partial qualification in year 11 or full qualification over two years)
- ADWPL Workplace Learning
- GEENG General English
- G1MAE General Mathematics
- GEMDTW Materials Design and Technology - Wood
- GEBCN Building and Construction

The subjects in Year 12 include
- Certificate II in Building and Construction (Partial qualification in year 12 or full qualification over two years)
- ADWPL Workplace Learning
- GTENG General
- GTMDTW Materials Design and Technology - Wood
- GTBCN Building and Construction
- OLNA Mathematics/English

Please note the standard of dress at TAFE for Certificate II Construction students is long or short dark blue work pants, long or short sleeve polo Hi Vis shirts (yellow upper and dark blue lower), safety boots and safety glasses.
Metals and Engineering

Metals and Engineering General is essentially a practical course focusing on real-life contexts. Students apply a design process to research and present information about materials, engineering principles, concepts and ideas, and design proposals. Students develop their engineering technology skills in planning and implementing a process to manipulate tools and machines to produce projects of their designed solution.

**Year 11 students will complete:**
1. Three days per week at Esperance Senior High School.
2. One day per week at the Esperance South Regional TAFE completing Certificate II in Engineering. The course provides entry level training into careers in most areas of the metal machining and fabrication industries.
3. One day per week at work placement.

**Year 12 students will complete:**
1. Three days per week at Esperance Senior High School.
2. Five week-long training blocks at TAFE, completing Certificate II in Engineering. The course provides entry level training into careers in most areas of the metal machining and fabrication industries. (Dates TBA).
3. Two days per week at work placement.

**The subjects in Year 11 include:**
- Certificate II in Engineering (Partial qualification in year 11 and full qualification over two years)
- ADWPL Workplace Learning
- GEENG General English
- G1MAE General Mathematics
- GEMDTM Materials Design and Technology – Metals context
- GEEST Engineering Studies

**The subjects in Year 12 include:**
- Certificate II in Engineering (Partial qualification in year 11 or full qualification over two years)
- ADWPL Workplace Learning
- GTENG English
- GTMDTM Materials Design and Technology – Metals context
- GTEST Engineering Studies
- OLNA Mathematics/English

Please note the standard of dress at TAFE for Certificate II Engineering students is long dark blue work pants, long sleeve Hi Vis work shirts (yellow upper and dark blue lower), safety boots and safety glasses.
Business

This stream is suited to students who wish to undertake a career in an office and/or retail environment. It equips students with the generic skills required to work in a business environment, where a wide variety of skills are needed, including customer service, working in a team and using business technology. Students will manage the Drop a Job Student Office, where they will provide services to staff and students at the high school. Students will be offered the opportunity to complete both Certificate II and III over the two years, provided they demonstrate the following skills: autonomous/independent worker, high level business and ICT skills, excellent time management skills, excellent organisational skills, strong verbal and written communication skills and an excellent school attendance rate.

The subjects in Year 11 include:
• Certificate II in Business and Certificate III in Business.
• ADWPL Workplace Learning
• GEENG General English
• G1MAE Mathematics: Essential
• GEAIT Applied Information Technology and/or GEBME Business Management and Enterprise
• One other option (if only one of GEAIT or GEBME selected)

The subjects in Year 12 include:
• Certificate II in Business and Certificate III in Business.
• ADWPL Workplace Learning
• GTENG General English (List A)
• GTAIT Applied Information Technology and/or GTBME Business Management and Enterprise
• One other option (if only one of GEAIT or GEBME selected)
• OLNA Mathematics/English

Please note: Year 12 students must select one subject from List A and List B.
List A: GTENG English
List B: GTAIT Applied Information Technology, GTFST Food Science and Technology, GTMAE Mathematics: Essential, GTOED General Outdoor Education and GTPES Physical Education Studies. Students must select one of these four subjects in year 12.
Children’s Services

Working with children is an enjoyable and rewarding experience. The childcare industry is constantly seeking motivated workers who show a keen interest in children. This stream provides students with an understanding of the community services industry and the development of children.

The subjects in Year 11 include:
- Certificate II in Community Services
- ADWPL Workplace Learning
- GEENG General English
- G1MAE Mathematics: Essential
- GECFC Children, Family and the Community
- One other option

The subjects in Year 12 include:
- Certificate II in Community Services
- ADWPL Workplace Learning
- GTENG General English
- GTCFC Children, Family and the Community
- One other List B option
- OLNA Mathematics/English

Please note: Year 12 students must select one subject from List A and List B.
List A: GTENG English, GTCFC Children, Family and the Community
List B: GTAIT Applied Information Technology, GTFST Food Science and Technology,
GTMAE Mathematics: Essential, GTOED General Outdoor Education and GTPES Physical Education Studies. Students must select one of these four subjects in year 12.

Community Activities

This course is suited to students who want to work in the recreation industry. Students will complete a Certificate II in Community Activities over two years. The course is designed to equip them with recreation instructor or sports development skills. Activities including: Senior First Aid, sports coaching and administration, weights and fitness programs.

The subjects in Year 11 include:
- Certificate II in Community Activities
- ADWPL Workplace Learning
- GEENG General English
- G1MAE Mathematics: Essential
- GEPES Physical Education Studies
- One other option

The subjects in Year 12 include:
- Certificate II in Community Activities
- ADWPL Workplace Learning
- GTENG General English
- GTPES Physical Education Studies (List B)
- One other option
- OLNA Mathematics/English

Please note: Year 12 students must select one subject from List A and List B.
List A: GTENG General English
List B: GTPES Physical Education Studies
Hair and Beauty

This course is suited to students who are eager to work as salon assistants and are competent in communicating in the workplace, interacting with and providing services to clients and assisting colleagues. They perform routine functions under direct supervision as part of a hairdressing and/or beauty team.

The subjects in Year 11 include:
- Certificate II in Retail Make-Up and Skin Care or Certificate II in Hairdressing
- ADWPL Workplace Learning
- GEENG General English
- G1MAE Mathematics: Essential
- Two other options

The subjects in Year 12 include:
- Certificate II in Retail Make-Up and Skin Care or Certificate II in Hairdressing
- ADWPL Workplace Learning
- GTENG General English (List A)
- Three other options
- OLNA Mathematics/English

Please note: Year 12 students must select one subject from List A and List B.
List A: GTENG General English
List B: GTAIT Applied Information Technology, GTFST Food Science and Technology, GTMAE Mathematics: Essential, GTOED General Outdoor Education and GTPES Physical Education Studies. Students must select one of these four subjects in year 12.

Hospitality

The hospitality industry is an exciting and growing area. It employs more than half a million people either in a full or part time capacity. Certificate II in Kitchen Operations is designed to develop fundamental skills and knowledge in practical and workplace environments.

The subjects in Year 11 include:
- Certificate II in Kitchen Operations
- ADWPL Workplace Learning
- GEENG General English
- G1MAE Mathematics: Essential
- GEFST Food Science and Technology
- One other option

The subjects in Year 12 include:
- Certificate II in Kitchen Operations
- ADWPL Workplace Learning
- GTENG General English (List A)
- GTFST Food Science and Technology
- One other option
- OLNA Mathematics/English

Please note: Year 12 students must select one subject from List A and List B.
List A: GTENG General English
List B: GTFST Food Science and Technology
Information Technology

This stream is suited to students who are passionate about information technology. It equips students with software and hardware skills in order to undertake a career in the information technology industry.

The subjects in Year 11 include:
- Certificate II in Information, Digital Media and Technology
- GEAIT Applied Information Technology
- ADWPL Workplace Learning
- GEENG General English
- GEMAE Mathematics: Essential
- One other option

The subjects in Year 12 include:
- Certificate II in Information, Digital Media and Technology
- GTAIT Applied Information Technology
- ADWPL Workplace Learning
- GTENG General English (List A)
- GTMAE Mathematics: Essential (List B)
- One other option
- OLNA Mathematics/English

Please note: Year 12 students must select one subject from List A and List B.
List A: GTENG General English
List B: GTMAE Mathematics: Essential

Skills for Work

Students will be enrolled in FSK20113 Certificate II in Skills for Work and Vocational Pathways and Workplace Learning (ADWPL). Four subjects studied will be chosen from the mainstream grid, including English and Mathematics.

Certificate II in Skills for Work and Vocational Pathways is designed for individuals who require further foundation skills development to prepare for workforce entry or vocational training pathways. Fourteen (14) units of competency will be studied over two years, with 8 compulsory units and 6 electives. To further develop work skills students will also undertake Workplace Learning in the form of block placements throughout the year.

The subjects in Year 11 include:
- FSK20113 Certificate II in Skills for Work
- ADWPL Workplace Learning (block release)
- GEENG General English
- GEMAE Mathematics: Essential
- Two other subjects

The subjects in Year 12 include:
- FSK20113 Certificate II in Skills for Work
- ADWPL Workplace Learning (block release)
- GTENG General English (List A)
- GTMAE Mathematics: Essential (List B)
- Two other subjects
- OLNA Mathematics/English

Please note: Year 12 students must select one subject from List A and List B.
List A: GTENG General English
List B: GTMAE Mathematics: Essential
Agriculture

See also Vocational Education and Training Section

ANIMAL PRODUCTION SYSTEMS (AVAILABLE IN VET AGRICULTURE ONLY)
YEAR 11 GEAPS YEAR 12 GTAPS

GEAPS
In the Animal Production Systems course, students learn about the sustainable use of natural resources, and the development, implementation, management, production, marketing and enterprise operations across a range of agricultural animal industries. Students explore, analyse and understand the ways that people manage natural resources such as plants, animals, climate, soil and water to meet personal and community needs. They analyse and evaluate food and fibre production systems, sustainable farming practices, agricultural technologies, consumer driven economics, agricultural ethics and effective product marketing.

PLANT PRODUCTION SYSTEMS (AVAILABLE IN VET AGRICULTURE ONLY)
YEAR 11 GEPPS YEAR 12 GTPPS

GEPPS
In the Plant Production Systems course, students learn about the sustainable use of natural resources, and the development, implementation, management, production, marketing and enterprise operations across a range of agricultural plant industries. Students explore, analyse and understand the ways that people manage natural resources such as plants, climate, soil and water to meet personal and community needs. They analyse and evaluate sustainable farming practices, agricultural technologies, consumer driven economics, agricultural ethics, and effective product marketing.

EMERGENCY SERVICE CADETS (AVAILABLE IN VET AGRICULTURE ONLY)
YEAR 11 CESFA YEAR 12 CESFA
CESFS CESFS

CESFA - FIRST AID AND EMERGENCY CARE MANAGEMENT SKILLS
CESFS - FIRE SAFETY MANAGEMENT SKILLS
## VISUAL ARTS

Students are able to select from the Visual Arts General or the Visual Arts ATAR course depending on the pathway they wish to take. Both courses are an in-depth study of visual arts, including both practical and written components.

### VISUAL ARTS GENERAL

**YEAR 11 GEVAR**  
**YEAR 12 GTVAR**

The Visual Arts General course has a large proportion of practical work, however students are required to complete written components as they research, create and reflect upon art works. Students engage in traditional, modern and contemporary media and techniques within the broad areas of art forms. Students are encouraged to explore and represent their ideas and gain an awareness of the role that artists and designers play in reflecting, challenging and shaping societal values. Students are encouraged to appreciate the work of other artists and engage in their own art practice.

### VISUAL ARTS ATAR

**YEAR 11 AEVAR**  
**YEAR 12 ATVAR**

In the Visual Arts ATAR course students are required to sit a written examination, along with a presentation of a resolved art work. Students engage in traditional, modern and contemporary media and techniques within the broad areas of art forms. The course promotes innovative practice. Students are encouraged to explore and represent their ideas and gain an awareness of the role that artists and designers play in reflecting, challenging and shaping societal values. The Visual Arts ATAR course allows students to develop aesthetic understandings and a critical awareness to appreciate and make informed evaluations of art through their engagement of their own art practice and the work of others.

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### UPPER SCHOOL THE ARTS

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Year 11 Prerequisites</th>
<th>Year 11 2017 (Australian Curriculum)</th>
<th>Year 12 2018 (Australian Curriculum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Arts General</td>
<td>Year 10 Art or Craft (or equivalent) e.g. Photography</td>
<td>GEVAR</td>
<td>GTVAR</td>
</tr>
<tr>
<td>Visual Arts ATAR</td>
<td>Strong result in Year 10 Art or Craft (or equivalent) e.g. Photography Strong result in Year 10 English</td>
<td>AEVAR</td>
<td>ATVAR</td>
</tr>
<tr>
<td>Music ATAR</td>
<td>Year 10 Class Music and Instrumental Music (strong performance skills on a chosen instrument)</td>
<td>AEMUS</td>
<td>ATMUS</td>
</tr>
</tbody>
</table>
The Arts

MUSIC
Students are able to select from the Music General or the Music ATAR course which will provide a pathway through to further study and may contribute toward an ATAR score. This course is an in-depth study of music, including both practical and written components. The written component incorporates aural and theory, composition and arrangement, cultural and historical investigation/analysis. The course provides opportunities for creative expression, the development of aesthetic appreciation, and understanding and respect for music and music practices across different times, places, cultures and contexts.

MUSIC ATAR
YEAR 11 AEMUS YEAR 12 ATMUS
The Music ATAR course encourages students to explore a range of musical experiences which develops their musical skills and understanding, and creative and expressive potential, through the context of Western Art Music. There is a large performance component to each unit, therefore students should have the instrumental skills of at least fifth grade AMEB pieces or equivalent on their chosen instrument when they commence in Year 11.

Students who have been enrolled in the school’s instrumental program, should have met this performance requirement by the end of their lower school studies.
School Curriculum and Standards Authority subjects offered under the umbrella of the Business Information Technology Department are designed to equip the student with essential business skills and cater for a range of differing interests and abilities.

Course offered is:

• Business Management and Enterprise

**BUSINESS MANAGEMENT AND ENTERPRISE**

**YEAR 11 AND YEAR 12 (AVAILABLE IN VET BUSINESS ONLY)**

The Business Management and Enterprise General course gives students the opportunity to understand how vital business is to individuals and society, and how it impacts on many aspects of our lives. Business has a complex and dynamic organisational structure that requires a combination of skills, aptitude, creativity, initiative and enterprise to operate effectively. In a constantly changing world, individuals, businesses and nations must adapt their position in an increasingly global economy and generate the wealth to sustain economic growth. To do this, business requires people with strategic vision who are enterprising, innovative and creative. This course focuses on the development of these skills within the business cycle, day-to-day running, continuing viability and expansion of a business. Exposure to a wide range of business activities, management strategies and an understanding of enterprise, helps students to appreciate the significance of their role as both participants and consumers in the business world.

**UNIT OUTLINES**

**GEBME** - The focus of this unit is on establishing a small business in Australia. Opportunities are provided to explore business start-ups and to recognise the factors that contribute to business success. Entrepreneurship and innovative thinking are introduced, generating ideas and proposals that may be suitable for business ventures. These proposals are then developed into a business plan.

**GTBME** - The focus of this unit is on operating a small business in Australia. The unit is suited to the running of a small business in the school or local environment, or to the use of business simulations. The concepts of innovation, marketing and competitive advantage and the key factors that influence consumer decision making are introduced. Legal aspects of running a small business, including rights and responsibilities of employer and employee, are investigated.
Applied Information Technology General

The Applied Information Technology General course provides students with the knowledge and skills to use a range of computer hardware and software to create, manipulate and communicate information in an effective, responsible and informed manner. Students develop an understanding of computer systems; the management of data; and the use of a variety of software applications to investigate, design, construct and evaluate digital products and digital solutions. The course offers pathways to further studies and a range of technology-based careers and a set of skills that equip students for the 21st century and give them an appreciation of the impact of information technology on society. This course would be an advantage for ATAR students.
### Design and Technology

#### UPPER SCHOOL DESIGN AND TECHNOLOGY

<table>
<thead>
<tr>
<th>Course</th>
<th>PREREQUISITE</th>
<th>Year 11 2017 (Australian Curriculum)</th>
<th>Year 12 2018 (Australian Curriculum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials Design and Technology (Metals) General</td>
<td>Experience in the Design and Technology area</td>
<td>GEMDTM</td>
<td>GTMDTM</td>
</tr>
<tr>
<td>Materials Design and Technology (Wood) General</td>
<td>Successful completion of Woodwork or Model Making course in lower school</td>
<td>GEMDTW</td>
<td>GTMDTW</td>
</tr>
<tr>
<td>Building and Construction General</td>
<td>Experience in the Design and Technology area</td>
<td>GEBCN</td>
<td>GTBCN</td>
</tr>
<tr>
<td>Automotive Engineering Technology General</td>
<td>Experience in the Design and Technology area</td>
<td>GEAET</td>
<td>GTAET</td>
</tr>
<tr>
<td>Engineering Studies General</td>
<td>Experience in the Design and Technology area</td>
<td>GEEST</td>
<td>GTEST</td>
</tr>
<tr>
<td>Design: Photography (Option 1) General</td>
<td>Successfully completed at least two lower school courses</td>
<td>GEDESP</td>
<td>GTDESP</td>
</tr>
<tr>
<td>Design: (Option 2) ATAR</td>
<td>A successful pathway two student</td>
<td>AEDES</td>
<td>ATDES</td>
</tr>
</tbody>
</table>

#### GENERAL MATERIALS DESIGN AND TECHNOLOGY (METALS) *(available in VET course only)*

**Year 11** GEMDTM  **Year 12** GTMDTM

The Materials Design and Technology General course is a practical course. Students choose to work with metals with the design and manufacture of products as the major focus. Students have the opportunity to develop and practise skills that contribute to creating a physical product, while acquiring an appreciation of the application of a design process, and an understanding of the need for materials sustainability. Students will learn and practise manufacturing processes and technologies, including principles of design, planning and management.

#### GENERAL MATERIALS DESIGN AND TECHNOLOGY (WOOD) *(available in VET course only)*

**Year 11** GEMDTW  **Year 12** GTMDTW

The Materials Design and Technology General course is a practical course. Students can choose to work with metal, textiles or wood, with the design and manufacture of products as the major focus. Students have the opportunity to develop and practice skills that contribute to creating a physical product, while acquiring an appreciation of the application of a design process, and an understanding of the need for materials sustainability. Students will learn and practice manufacturing processes and technologies, including principles of design, planning and management.
Design and Technology

BUILDING AND CONSTRUCTION GENERAL (available in VET Building and Construction course only)
Year 11 GEBCN Year 12 GTBCN
The Building and Construction General course encompasses the skills and applications of many of the trades and professions in the construction industry. Students have the opportunity to develop and practise skills that contribute to creating a physical environment, while acquiring an understanding of the need for sustainability, and an awareness of community and environmental responsibilities. Students will learn and practise building processes and technologies, including principles of design, planning and management.

GENERAL AUTOMOTIVE ENGINEERING TECHNOLOGY (available in VET Automotive course only)
Year 11 GEAET Year 12 GTAET
GEAET - The focus for this unit is automotive systems. Students understand automotive vehicles and the basic principles and systems around which an automotive vehicle is constructed and assembled as well as considering the outer shell. Under guidance, they maintain the automotive vehicle using safe workshop practices and the correct use of tools. They follow basic rules associated with automotive workshops as well as the safe operation of the automotive vehicle. They examine how the use of automotive vehicles has affected our society and the environment.

The focus for this unit is automotive servicing. Students develop knowledge and skills involved with servicing automotive vehicles for purposes of maintenance and repair. They are made aware of socioeconomic and environmental issues and the range of occupations in this area. The diagnostic testing of automotive systems is investigated as are the underpinning principles. Students use Occupational Safety and Health (OSH) rules and regulations to plan and manage safe working practices.

GTAET - The focus for this unit is automotive tuning. Students develop knowledge and skills involved with tuning automotive engines of different types. They are made aware of socioeconomic and environmental issues and the range of occupations in this area. The diagnostic testing of automotive systems is examined along with the underpinning principles. They use OSH rules and regulations to plan and manage safe working practices.

Students understand automotive vehicles and the basic systems and principles around which an automotive vehicle is constructed and assembled, taking into account automotive body parts and the way they are attached. This will include basic repair of dents and corrosion. They maintain the automotive vehicle with guidance, using safe workshop practices and the correct use of tools. They follow basic rules associated with automotive workshops as well as the safe operation of the automotive vehicle. They learn how the use of automotive vehicles has affected our society and the environment.

ENGINEERING STUDIES (available in VET Metals course only)
Year 12 GTEST
Engineering Studies provides opportunities for students to investigate, research and present information, design and make products and undertake project development. These opportunities allow students to apply engineering processes, understand underpinning scientific and mathematical principles, develop engineering technology skills and explore the interrelationships between engineering and society. Engineering Studies is essentially a practical course focusing on real life contexts. It aims to prepare students for a future in an increasingly technological world by providing the foundation for life-long learning about engineering. It is particularly suited to those students who are interested in engineering and technical industries as future careers.
Design and Technology

DESIGN (PHOTOGRAPHY)
Year 11 GEDESP (Design: General Photography)  
AEDES (Design: ATAR)

DESIGN (PHOTOGRAPHY)
Year 12 GTDESP (Design: General Photography)  
ATDES (Design: ATAR)

DESIGN ATAR
In the Design ATAR course students develop skills and processes for current and future industry and employment markets. Students are equipped with the knowledge and skills to understand design principles and processes, analyse problems and possibilities, and devise innovative strategies within design contexts. These include photography or technical graphics offered at ESHS. The Design ATAR course also emphasises the scope of design in professional industries allowing students to maximise university pathways.

DESIGN GENERAL
In the Design General course students develop skills and processes for current and future industry and employment markets. Students are equipped with the knowledge and skills to understand design principles and processes, analyse problems and devise innovative strategies through projects. Students are able to focus on particular contexts from a choice of photography or technical graphics offered at ESHS. The Design General course also emphasises the scope of design in trade based industries allowing students to maximise vocational pathways.
## English

### UPPER SCHOOL ENGLISH

<table>
<thead>
<tr>
<th>PREREQUISITE</th>
<th>YEAR 11 2017 (AUSTRALIAN CURRICULUM)</th>
<th>YEAR 12 2018 (AUSTRALIAN CURRICULUM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Foundation</td>
<td>Completion of year 10 Not achieved category 3 in OLNA</td>
<td>FEENG</td>
</tr>
<tr>
<td>English General</td>
<td>Completion of year 10 Achieved Stage 3 OLNA</td>
<td>GEENG OR FEENG</td>
</tr>
<tr>
<td>English ATAR</td>
<td>Year 10 Successful in pathway one or highly successful in pathway two</td>
<td>AEENG</td>
</tr>
<tr>
<td>Literature ATAR</td>
<td>Year 10 Highly successful in pathway one</td>
<td>AELIT</td>
</tr>
<tr>
<td>Literature and English ATAR</td>
<td>Year 10 Successful in pathway one</td>
<td>AELIT</td>
</tr>
</tbody>
</table>

### UNIT ORGANISATION

Typically, the English course is studied over two years. Students will undertake the full two-year course and complete at least four units. In year 11 and year 12 units, will be studied consecutively; that is, a discrete unit each semester. The year 11 syllabus details Units 1 and 2. The year 12 syllabus details Unit 3 and 4. Units 1 and 2 are typically studied as a pair. Units 3 and 4 must be studied as a pair.

Units have been developed to cater for a full range of students, with entry points to suit a range of student achievement levels. To provide continuity and coherence across a two-year course, each pair of units is designed around the same essential content areas, which increase in complexity from one unit to the next.

This means that the units are at the level of complexity that best suits the student population, and teachers and students have the flexibility to undertake learning activities appropriate to students’ needs, interests and/or post-school destinations.

#### Year 11

- FEENG
- GEENG OR AEENG
- AELIT

#### Year 12

- FTENG
- GTENG
- ATENG
- ATLIT

### ENGLISH FOUNDATION

The English Foundation course aims to develop students' skills in reading, writing, viewing, speaking and listening in work, learning, community and everyday personal contexts. **This course is for students who have not demonstrated the literacy standard in the OLNA.** Such development involves an improvement in English literacy, where literacy is defined broadly to include reading ability, verbal or spoken literacy, the literacy involved in writing, and visual literacy. Students undertaking this course will develop skills in the use of functional language conventions, including spelling, punctuation and grammar. There is flexibility to move from English Foundation to English General after Semester 1.
English

Students who have already achieved the literacy standard in OLNA are NOT eligible to enrol in Foundation English. Similarly, if they achieve the minimum standard of literacy in Semester 1 of Year 11, they are NOT eligible to continue in Semester 2 of that year.

ENGLISH GENERAL
The English General course focuses on consolidating and refining the skills and knowledge needed by students to become competent, confident and engaged users of English in everyday, community, social, further education, training and workplace contexts. The course is designed to provide students with the skills to succeed in a wide range of post-secondary pathways by developing their language, literacy and literary skills. Students comprehend, analyse, interpret, evaluate and create analytical, imaginative, interpretive and persuasive texts in a range of written, oral, multimodal and digital forms.

ENGLISH ATAR
The English ATAR course focuses on developing students’ analytical, creative, and critical thinking and communication skills in all language modes, encouraging students to critically engage with texts from their contemporary world, the past, and from Australian and other cultures. Through close study and wide reading, viewing and listening, students develop the ability to analyse and evaluate the purpose, stylistic qualities and conventions of texts and to enjoy creating imaginative, interpretive, persuasive and analytical responses in a range of written, oral, multimodal and digital forms.

LITERATURE ATAR
In the Literature ATAR course, students learn to create readings of literary texts and to create their own texts, including essays, poems, short stories, plays and multimodal texts. Students engage with literary theory and study literary texts in great detail. Students learn to read texts in terms of their cultural, social and historical contexts; their values and attitudes; and their generic conventions and literary techniques. They enter the discourse about readings, reading practices and the possibility of multiple readings. Students learn to create texts paying attention to contexts, values and conventions. Students learn about literary language, narrative, image and the power of representation. Students experience the aesthetic and intellectual pleasure that reading and creating literary texts can bring.

It is recommended that students who choose Literature in year 12, also enrol in English. For Literature students who need to use English in their ATAR, it is recommended that they enrol in both English and Literature in year 12. These students will need to be motivated, autonomous learners to complete the requirements of both courses.

ENGLISH TUTORIAL
English Tutorial is offered as a half unit to support students enrolled in the English course and for students wishing to improve their performance in English. It caters both for students identified as at risk of not meeting the demands of the English course and students aspiring to tertiary entrance, who are experiencing difficulty in English. Students have opportunities to discuss key concepts, texts and assignments in groups and to seek assistance as individuals. Ideas are discussed closely with students to promote understandings and skills.
Health and Physical Education

### Upper School Health and Physical Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisite</th>
<th>Year 11 2017 (Australian Curriculum)</th>
<th>Year 12 2018 (Australian Curriculum)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outdoor Education General</strong></td>
<td>Successful completion of year 10 Health and Physical Education</td>
<td>G1OED/G2OED</td>
<td>GTOED</td>
</tr>
<tr>
<td><strong>Physical Education Studies General</strong></td>
<td>Successful completion of year 10 Health and Physical Education</td>
<td>G1PES/G2PES</td>
<td>GTPES</td>
</tr>
<tr>
<td><strong>Physical Education Studies ATAR</strong></td>
<td>Successful pathway one student</td>
<td>A1PES/A2PES</td>
<td>ATPES</td>
</tr>
</tbody>
</table>

The Health and Physical Education learning area offers School Curriculum and Standards Authority (SCSA) Subjects in 2016. The Physical Education ATAR can be used for entrance to university. Students considering university, TAFE and/or employment that are interested in this area and enjoy being physically active and outside will benefit from the Health and Physical Education learning area subjects.

### Year 11 and 12 Outdoor Education General

**Year 11 OUTDOOR EDUCATION** GEOED
**Year 12 OUTDOOR EDUCATION** GTOED

Through interaction with the natural world, Outdoor Education aims to develop an understanding of our relationships with the environment, others and ourselves. The Outdoor Education General course focuses on outdoor activities in a range of environments, including bushwalking, surfing, bodyboarding, canoeing, snorkeling and orienteering. It provides students with an opportunity to develop essential life skills and physical activity skills, and an opportunity to develop a comprehensive understanding of the environment and develop a positive relationship with nature. The course also provides students with opportunities to develop skills that will enable them to pursue personal interests and careers in outdoor pursuits, environmental management, or eco tourism.

### Year 11 and 12 Physical Education Studies General

**Year 11 PHYSICAL EDUCATION** GEPE
**Year 12 PHYSICAL EDUCATION** GTPES

Physical Education Studies contributes to the development of students’ physical, social and emotional growth. The Physical Education Studies General course provides students with opportunities to understand and improve performance through the integration of theoretical concepts and practical activities. Through engagement as performers, leaders, coaches, analysts and planners of physical activity, students may develop skills that can be utilised in leisure, recreation, education, sport development, youth work, health and medical fields.
Health and Physical Education

YEAR 11 AND 12 PHYSICAL EDUCATION STUDIES ATAR
Year 11 PHYSICAL EDUCATION  AEPES   Year 12 PHYSICAL EDUCATION  ATPES
Physical Education Studies contributes to the development of students’ physical, social and emotional growth. In the Physical Education Studies ATAR course students learn about physiological, psychological and biomechanical principles, and apply these to analyse and improve personal and group performances in physical activities. Throughout the course, students learn through integrated written, oral and active learning experiences. The course also provides students with opportunities to develop skills that will enable them to pursue personal interests and potential in physical activity as athletes, coaches, officials, administrators and/or volunteers.
UPPER SCHOOL HOME ECONOMICS

<table>
<thead>
<tr>
<th>PREREQUISITE</th>
<th>YEAR 11 2017 (AUSTRALIAN CURRICULUM)</th>
<th>YEAR 12 2018 (AUSTRALIAN CURRICULUM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children, Family and the Community (this is only available to VET students)</td>
<td>Year 10 Child Care is recommended</td>
<td>GECFC</td>
</tr>
<tr>
<td>Food Science and Technology General</td>
<td>Year 10 Foods is recommended</td>
<td>GEFST</td>
</tr>
<tr>
<td>Materials, Design and Technology (Textiles)</td>
<td>Year 10 Fashion/Textiles is recommended</td>
<td>GEMDTT</td>
</tr>
</tbody>
</table>

CHILDREN, FAMILY AND THE COMMUNITY GENERAL (AVAILABLE IN THE VET COURSE ONLY)

GECFC - The Children, Family and the Community General course focuses on factors that influence human development and the wellbeing of individuals, families and communities. Students explore the health of individuals and communities and the protective and preventative strategies that impact on growth and development. They engage in shared research, examine goal setting, self-management, decision making, communication and cooperation skills when creating products, services or systems that will assist individuals, families and communities to achieve their needs and wants. Contemporary Australian issues or trends relating to families and communities at the state and national level are examined in practical ways.

GTCFC - The Children, Family and the Community General course focuses on factors that influence human development and the wellbeing of individuals, families and communities. Students develop an understanding of the social, cultural, environmental, economic, political and technological factors which have an impact on the ability of individuals and families to develop skills and lead healthy lives. They recognise how promoting inclusion and diversity among individuals, families and groups in society contributes to the creation of safe, cohesive and sustainable communities.

Through the study of developmental theories, students develop an understanding of human growth and the domains of development. Students are introduced to the diverse nature and interdependence of societal groups. They develop an appreciation of how the creation of environments that promote optimal growth and development of individuals, families and communities affect and influence society as a whole. Students investigate access to, and availability of, support services and review laws and regulations that govern the provision of such support.

Students explore products, services or systems that address issues, opportunities or challenges to meet the needs of individuals, families and communities. Students consider alternative perspectives, policies and practices when working individually or collaboratively. They use a range of skills to make informed decisions and consider actions at personal, family and community levels. Students communicate and interact with children, families and community groups in practical ways. They demonstrate initiative when advocating for others about issues of inequity and injustice. Students understand that beliefs, values and ethics influence decisions made by individuals, families, and communities.
FOOD SCIENCE AND TECHNOLOGY GENERAL
YEAR 11 GEFST YEAR 12 GTFST

GEFST - The Food Science and Technology General course provides opportunities for students to explore and develop food-related interests and skills. Food impacts on every aspect of daily life and is essential for maintaining overall health and wellbeing. Students organise, implement and manage production processes in a range of food environments and understand systems that regulate food availability, safety and quality. Knowledge of the sensory, physical, chemical and functional properties of food is applied in practical situations. Students investigate the food supply chain and value-adding techniques applied to food to meet consumer and producer requirements. Principles of dietary planning, adapting recipes, and processing techniques, are considered for specific nutritional needs of demographic groups. Occupational safety and health requirements, safe food handling practices, and a variety of processing techniques, are implemented to produce safe, quality food products. This course may enhance employability and career opportunities in areas that include nutrition, health, food and beverage manufacturing, food processing, community services, hospitality and retail.

GTFST - Food impacts every aspect of daily life and is essential for maintaining overall health and wellbeing. The application of science and technology plays an important role in understanding how the properties of food are used to meet the needs of consumers and producers. Food laws and regulations govern the production, supply and distribution of safe foods. Students develop practical food-related skills, understandings and attitudes that enhance their problem-solving abilities and decision-making skills.

In the Food Science and Technology General course, students develop their interests and skills through the design, production and management of food-related tasks. They extend their knowledge of the sensory, physical, chemical and functional properties of food and apply these in practical situations. Students explore innovations in science and technology and changing consumer demands. New and emerging foods encourage the design, development and marketing of a range of products, services and systems.

MATERIALS DESIGN AND TECHNOLOGY (TEXTILES) GENERAL
YEAR 11 GEMDTT YEAR 12 GTMDTT

GEMDTT - The Materials Design and Technology General course is a practical course. Students can choose to work with metal, textiles or wood, with the design and manufacture of products as the major focus. Students have the opportunity to develop and practise skills that contribute to creating a physical product, while acquiring an appreciation of the application of a design process, and an understanding of the need for materials sustainability. Students will learn and practise manufacturing processes and technologies, including principles of design, planning and management.

GTMDTT - The Materials Design and Technology General course is a practical course. By working with materials, students develop a range of manipulation, processing, manufacturing and organisational skills. When designing with materials, they develop cognitive skills, such as solving problems, generating ideas, creative design strategies and communicating what they do. This makes them more technologically literate and as consumers, enables them to make more informed decisions about the use and misuse of technology.

The Materials Design and Technology General course aims to prepare all students for a future in a technological and material world by providing the foundation for lifelong learning about how products are designed and how materials are developed and used.

Practical tasks include the development of an outfit for the Apex Australia Teenage Fashion Awards, sun smart clothing and working with recycled materials.

SEE VOCATIONAL AND EDUCATION SECTION FOR DETAILS OF THE VET HOSPITALITY AND VET CHILDCARE COURSES.
**Humanities and Social Sciences**

<table>
<thead>
<tr>
<th>UPPER SCHOOL HUMANITIES AND SOCIAL SCIENCES</th>
<th>PREREQUISITE</th>
<th>YEAR 11 2017 (AUSTRALIAN CURRICULUM)</th>
<th>YEAR 12 2018 (AUSTRALIAN CURRICULUM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics ATAR</td>
<td>Successful completion of Pathway 1 in year 10 or with classroom teacher’s recommendation for some Pathway 2 students</td>
<td>AEECO</td>
<td>ATECO</td>
</tr>
<tr>
<td>Geography ATAR</td>
<td>AEGEO</td>
<td></td>
<td>ATGEO</td>
</tr>
<tr>
<td>Modern History ATAR</td>
<td>AEHIM</td>
<td></td>
<td>ATHIM</td>
</tr>
<tr>
<td>Certificate II in Skills for Work VET</td>
<td>Successful completion of year 10</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: Students intending to study these subjects must gain approval from their class teacher or the Humanities and Social Sciences head of department. Entry into these subjects is directly related to student achievement in Humanities and Social Sciences.

In 2016 Humanities and Social Sciences offers students a range of subjects that can lead to tertiary entrance.

**TERTIARY ENTRANCE SUBJECTS**

**ECONOMICS**

**YEAR 11 AEECO**

Economics investigates the choices all people face as they try to solve the problem of satisfying their unlimited wants with limited resources. Students will develop skills that will help them to understand economics from a personal perspective to a global level. Students should study Economics if they are interested in careers such as: accountant, diplomat, finance manager, stockbroker, lawyer, public relations officer, and or work in the marketing field.

**YEAR 11 ECONOMICS (ATAR)**

**UNIT 1 – MICROECONOMICS**

This unit is an introduction to microeconomics and explores the role of the market in determining the wellbeing of individuals and society. Students explore the workings of real world markets with an emphasis on the Australian economy.

**UNIT 2 – MACROECONOMICS**

This unit is an introduction to macroeconomics and explores economic growth, inflation and unemployment with an emphasis on the Australian economy. Students learn it is important to measure and monitor changes in these macroeconomic indicators as changes in the level of economic activity affect the wellbeing of individuals and society.

**YEAR 12 ECONOMICS (ATAR)**

**UNIT 3 – AUSTRALIA AND THE GLOBAL ECONOMY**

This unit explores the interdependence of Australia and the rest of the world. Australia is a relatively open economy and, as such, is influenced by changes in the world economy.
Humanities and Social Sciences

UNIT 4 – ECONOMIC POLICIES AND MANAGEMENT
This unit explores the economic objectives of the Australian Government and the actions and policies taken in the pursuit of these objectives. Changes in the level of economic activity influence the policy mix and the government’s capacity to achieve its objectives.

GEOGRAPHY
YEAR 11  AGEO  YEAR 12  ATGEO
Geography gives students the opportunity to learn about the human and physical dimensions of the world through the study of people, places and environments and the interrelationships that exist in a rapidly changing world. Students will learn about their physical world, issues that are present and sustainable solutions to problems. Students should study Geography if they are interested in careers such as: journalism, engineering and town planning, or working in the fields of agriculture, mining, foreign affairs or trade.

YEAR 11 GEOGRAPHY (ATAR)
UNIT 1 – NATURAL AND ECOLOGICAL HAZARDS
Students explore the management of hazards and the risk they pose to people and environments. Building on their existing geographical knowledge and understandings, students explore natural hazards, including atmospheric, hydrological and geomorphic hazards, for example, storms, cyclones, tornadoes, frosts, droughts, bushfires, flooding, earthquakes, volcanoes and landslides. They will also explore ecological hazards, for example, environmental diseases/pandemics (toxin based respiratory ailments, infectious diseases, animal transmitted diseases and water borne diseases) and plant and animal invasions.

UNIT 2 – GLOBAL NETWORKS AND INTERCONNECTIONS
Students explore the economic and cultural transformations taking place in the world and the spatial outcomes of these processes and their social and geopolitical consequences. Students have the opportunity to explore the ideas developed in the unit through an investigation of the changes taking place in the spatial distribution of the production and consumption of a selected commodity, good or service and the study of an example of cultural diffusion, adoption and adaptation

YEAR 12 GEOGRAPHY (ATAR)
UNIT 3 – GLOBAL ENVIRONMENTAL CHANGE
Students assess the impacts of land cover transformations with particular reference to climate change or biodiversity loss. This unit begins with an overview of land cover change drawn from different regions and countries. Two depth studies provide greater detail. The first study focuses on the interrelationship between land cover and either global climate change or biodiversity loss. The second study focuses on the evaluation of a local land cover change initiative designed to address either climate change or biodiversity loss.

UNIT 4 – PLANNING SUSTAINABLE PLACES
Students investigate how the outcomes of processes vary depending on local responses and adaptations, for example, population growth and decline, and economic restructuring. Students also examine the causes and consequences of urbanisation as well as challenges that exist in metropolitan and regional centres and megacities. Two depth studies provide greater detail. The first study focuses on challenges in metropolitan Perth or a regional urban centre in Western Australia. The second study focuses on challenges faced in a megacity. Students examine the concepts, processes and roles of planning in these selected contexts.
Humanities and Social Sciences

MODERN HISTORY
YEAR 11 AEHIM YEAR 12 ATHIM

Modern History makes meaning of the past to help understand the present. Modern History provides an insight and knowledge to the background and driving forces behind present local and global issues. Students will develop skills and knowledge to make informed judgments in a rapidly changing world. Students should study Modern History if they are interested in careers such as: lawyer/barrister, diplomat, author, legal executive, researcher, travel consultant, or working in the fields of the media and the Arts.

YEAR 11 MODERN HISTORY (ATAR)
UNIT 1 – UNDERSTANDING THE MODERN WORLD
This unit examines developments of significance in the modern era, including the ideas that inspired them and their far-reaching consequences. Students examine Capitalism – the American experience (1907–1941). Through their studies, students explore the nature of sources for the study of modern history and build their skills in historical method through inquiry.

UNIT 2 – MOVEMENTS FOR CHANGE IN THE 20TH CENTURY
This unit examines significant movements for change in the 20th century that led to change in society, including people’s attitudes and circumstances. Through a detailed examination of Nazism in Germany, students investigate the ways in which individuals, groups and institutions have challenged existing political structures, accepted social organisation, and prevailing economic models, to transform societies.

YEAR 12 MODERN HISTORY (ATAR)
UNIT 3 – MODERN NATIONS IN THE 20TH CENTURY
This unit examines the characteristics of modern nations in the 20th century; the crises that confronted nations, their responses to these crises and the different paths nations have taken to fulfil their goals. Students study the characteristics of Russia and the Soviet Union 1914–1945 (World War I to the end of World War II). They investigate crises that challenged the stability of government, the path of development that was taken and the social, economic and political order that was either established or maintained.

UNIT 4 – THE MODERN WORLD SINCE 1945
This unit examines some significant and distinctive features of the modern world within the period 1945–2001 in order to build students’ understanding of the contemporary world – that is, why we are here at this point in time. Students study Australia’s engagement with Asia. As part of their study, they should follow and make relevant connections with contemporary events.

CERTIFICATE II IN SKILLS FOR WORK (AVAILABLE IN VET COURSE ONLY)
Students will be enrolled in FSK20113 Certificate II in Skills for Work and Vocational Pathways and Workplace Learning (ADWPL). Other subjects studied will be chosen from the mainstream grid.

Certificate II in Skills for Work and Vocational Pathways is designed for individuals who require further foundation skills development to prepare for workforce entry or vocational training pathways. Fourteen (14) units of competency will be studied over two years, with 8 compulsory units and 6 electives. To further develop work skills students will also undertake Workplace Learning in the form of block placements throughout the year.
### Mathematics

#### Upper School Mathematics

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
<th>Year 11 2017 (Australian Curriculum)</th>
<th>Year 12 2018 (Australian Curriculum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics (VET – Course 1)</td>
<td>Dependent on OLNA results</td>
<td>Mathematics Foundation F1MAT</td>
<td>OLNA Mathematics</td>
</tr>
<tr>
<td>Mathematics (VET – Course 2)</td>
<td>Successful OLNA students</td>
<td>Mathematics Essential G1MAE</td>
<td>N/A</td>
</tr>
<tr>
<td>Mathematics (Course 5)</td>
<td>Dependent on OLNA results</td>
<td>Mathematics Foundation FEMAT</td>
<td>Mathematics Foundation FTMAT</td>
</tr>
<tr>
<td>Mathematics (Course 4)</td>
<td>Successful OLNA students</td>
<td>Mathematics Essential GEMAE</td>
<td>Mathematics Essential GTMAE</td>
</tr>
<tr>
<td>Mathematics (Course 3)</td>
<td>Highly successful pathway two students</td>
<td>Mathematics Applications AEMAA</td>
<td>Mathematics Applications ATMAA</td>
</tr>
<tr>
<td>Mathematics (Course 2)</td>
<td>Successful pathway one students</td>
<td>Mathematics Methods AEMAM</td>
<td>Mathematics Methods ATMAM</td>
</tr>
<tr>
<td>Mathematics (Course 1)</td>
<td>Highly successful pathway one students</td>
<td>Mathematics Methods AEMAM Mathematics Specialist AEMAS</td>
<td>Mathematics Methods ATMAM Mathematics Specialist ATMAS</td>
</tr>
</tbody>
</table>

#### Unit Outlines

**Mathematics Foundation**

**Mathematics Essential General**

**Mathematics Applications ATAR**

**Mathematics Methods ATAR**

**Mathematics Specialist ATAR**

The five mathematics courses are differentiated, each focusing on a pathway that will meet the learning needs of a particular group of senior secondary students.

**Mathematics Foundation**

**Year 11 F1MAT or FEMAT**

**Year 12 FTMAT**

The Mathematics Foundation course focuses on building the capacity, confidence and disposition to use mathematics to meet the numeracy standard for the WACE. This course is for students who have not demonstrated the numeracy standard in the OLNA. It provides students with the knowledge, skills and understanding to solve problems across a range of contexts including personal, community and workplace/employment. This course provides the opportunity for students to prepare for post-school options of employment and further training.
Mathematics

MATHEMATICS ESSENTIAL GENERAL
YEAR 11  G1MAT or GEMAE
YEAR 12  GTMAE
The Mathematics Essential General course 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.

MATHEMATICS APPLICATIONS: ATAR
YEAR 11  AEMAA
YEAR 12  ATMAA
This course 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 statistical questions that involve analysing univariate and bivariate data, including time series data.

The Mathematics Applications ATAR course is designed for students who want to extend their mathematical skills beyond Year 10 level, but whose future studies or employment pathways do not require knowledge of calculus. The course is designed for students who have a wide range of educational and employment aspirations, including continuing their studies at university or TAFE.

MATHEMATICS METHODS ATAR
YEAR 11  AEMAM
YEAR 12  ATMAM
This course focuses on the use of calculus and statistical analysis. The study of calculus provides a basis for understanding rates of change in the physical world, and includes the use of functions, their derivatives and integrals, in modelling physical processes. The study of statistics develops students’ ability to describe and analyse phenomena that involve uncertainty and variation.

Mathematics Methods provides a foundation for further studies in disciplines in which mathematics and statistics have important roles. It is also advantageous for further studies in the health and social sciences. In summary, this course is designed for students whose future pathways may involve mathematics and statistics and their applications in a range of disciplines at the tertiary level.

MATHEMATICS SPECIALIST ATAR
YEAR 11  AEMAS
YEAR 12  ATMAS
This course provides opportunities, beyond those presented in the Mathematics Methods ATAR course, to develop rigorous mathematical arguments and proofs, and to use mathematical models more extensively. Mathematics Specialist contains topics in functions and calculus that build on and deepen the ideas presented in the Mathematics Methods course, as well as demonstrate their application in many areas. The Mathematics Specialist course also extends understanding and knowledge of statistics and introduces the topics of vectors, complex numbers and matrices. Mathematics Specialist is the only ATAR mathematics course that should not be taken as a stand-alone course and it is recommended to be studied in conjunction with the Mathematics Methods ATAR course as preparation for entry to specialised university courses such as engineering, physical sciences and mathematics.
Science

UPPER SCHOOL SCIENCE

<table>
<thead>
<tr>
<th>COURSE</th>
<th>PREREQUISITES</th>
<th>YEAR 11 2017 (AUSTRALIAN CURRICULUM)</th>
<th>YEAR 12 2018 (AUSTRALIAN CURRICULUM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated Science General</td>
<td>Year 10 Science Grade C or above</td>
<td>GEISC</td>
<td>GTISC</td>
</tr>
<tr>
<td>Biology ATAR</td>
<td>Year 10 Biological Sciences Grade A or B</td>
<td>AEBIO</td>
<td>ATBIO</td>
</tr>
<tr>
<td>Chemistry ATAR</td>
<td>Year 10 Chemical Sciences Grade A or B</td>
<td>AECHE</td>
<td>ATCHE</td>
</tr>
<tr>
<td>Human Biology ATAR</td>
<td>Year 10 Biological Sciences Grade A or B</td>
<td>AEHBY</td>
<td>ATHBY</td>
</tr>
<tr>
<td>Physics ATAR</td>
<td>Year 10 Physical Sciences Mathematics Grade A</td>
<td>AEPHY</td>
<td>ATPHY</td>
</tr>
</tbody>
</table>

INTEGRATED SCIENCE

YEAR 11 GEISC YEAR 12 GTISC

Science is a dynamic, collaborative human activity that uses distinctive ways of valuing, thinking and working to understand natural phenomena. The Integrated Science course encourages students to be questioning, reflective and critical thinkers about scientific issues.

The course is based on an integrated view of scientific knowledge that draws on the traditional disciplines of science and new scientific technology to enable students to investigate issues that are interesting and relevant in a modern world. This course provides opportunities for students to consider contemporary scientific developments which enable them to make informed judgments and decisions about questions that directly affect their lives and the lives of others.

The course is grounded in the belief that science is, in essence, a practical activity. It involves students in research that develops a variety of skills, including the use of appropriate technology, different methods of investigation and a sense of practical application.

This course enables students to investigate science issues, in the context of the world around them, and encourages student collaboration and cooperation. It requires them to be creative, intellectually honest, to evaluate arguments with scepticism and to conduct their investigations in ways that are ethical, fair and respectful of others.

The Integrated Science course is inclusive and aims to be attractive to students with a wide variety of backgrounds, interests and career aspirations.
Science

**BIOLOGY**

**YEAR 11** AEBIO    **YEAR 12** ATBIO

Biology is the study of the fascinating diversity of life as it has evolved and as it interacts and functions. Investigation of biological systems and their interactions, from cellular processes to ecosystem dynamics, has led to biological knowledge and understanding that enable us to explore and explain everyday observations, find solutions to biological issues, and understand the processes of biological continuity and change over time.

Australian, regional and global communities rely on the biological sciences to understand, address and successfully manage environmental, health and sustainability challenges facing society in the twenty-first century. This course explores ways in which scientists work collaboratively and individually in a range of integrated fields to increase understanding of an ever-expanding body of biological knowledge. Students develop their investigative, analytical and communication skills through field, laboratory and research investigations of living systems and through critical evaluation of the development, ethics, applications and influences of contemporary biological knowledge in a range of contexts.

Studying the Biology course provides students with a suite of skills and understandings that are valuable to a wide range of further study pathways and careers. Understanding of biological concepts, as well as general science knowledge and skills, is relevant to a range of careers, including those in medical, veterinary, food and marine sciences, agriculture, biotechnology, environmental rehabilitation, biosecurity, quarantine, conservation and eco-tourism. This course will also provide a foundation for students to critically consider and to make informed decisions about contemporary biological issues in their everyday lives.

**CHEMISTRY**

**YEAR 11** AECHE    **YEAR 12** ATCHE

Chemistry is the study of materials and substances and the transformations they undergo through interactions and the transfer of energy. Chemists can use an understanding of chemical structures and processes to adapt, control and manipulate systems to meet particular economic, environmental and social needs.

Chemistry develops students’ understanding of the key chemical concepts and models of structure, bonding, and chemical change, including the role of chemical, electrical and thermal energy. Students learn how models of structure and bonding enable chemists to predict properties and reactions and to adapt these for particular purposes.

Studying Chemistry provides students with a foundation for undertaking investigations in a wide range of scientific fields and often provides the unifying link across interdisciplinary studies that are valuable to a wide range of further study pathways and careers, including those in forensic science, environmental science, engineering, medicine, dentistry, pharmacy and sports science.

Additionally, chemistry knowledge is valuable in occupations that rely on an understanding of materials and their interactions, such as art, winemaking, agriculture and food technology.

Some students will use this course as a foundation to pursue further studies in chemistry, and all students will become more informed citizens, able to use chemical knowledge to inform evidence-based decision making and engage critically with contemporary scientific issues.
Science

HUMAN BIOLOGY
YEAR 11 AEBHY
YEAR 12 ATHBY

How does the human body function? Why does it work this way? How do we reproduce? Why are we different from each other but similar to our relatives? What effect will my choices have on my health? These are some of the questions people ask and these are the sorts of questions human biology tries to answer.

Students will learn about themselves, relating structure to function and how integrated regulation of systems and functions allows individuals to survive in a changing environment. They will be exposed to new discoveries that are increasing our understanding of variations between humans and the causes of dysfunction, which lead to new treatments and preventative measures.

An understanding of human biology will assist students in everyday life and will be valuable for a variety of career paths such as medical and paramedical fields, food and hospitality, childcare, sport and social work.

PHYSICS

YEAR 11 AEPHY
YEAR 12 ATPHY

Physics is a fundamental science that endeavours to explain all the natural phenomena that occur in the universe. Physics has helped to unlock the mysteries of the universe and provides the foundation of understanding upon which modern technologies and all other sciences are based.

In this course, students gather, analyse and interpret primary and secondary data to investigate a range of phenomena and technologies using some of the most important models, laws and theories of physics, including the kinetic particle model, the atomic model, electromagnetic theory, and the laws of classical mechanics.

Students investigate how the unifying concept of energy explains diverse phenomena and provides a powerful tool for analysing how systems interact throughout the universe on multiple scales. Students learn how more sophisticated theories, including quantum theory, the theory of relativity and the Standard Model, are needed to explain more complex phenomena, and how new observations can lead to models and theories being refined and developed.

Students learn how an understanding of physics contributes to diverse areas in contemporary life, such as engineering, renewable energy generation, communication, development of new materials, transport and vehicle safety, medical science, an understanding of climate change, and the exploration of the universe.

Studying physics will enable students to become citizens who are better informed about the world around them and who have the critical skills to evaluate and make evidence-based decisions about current scientific issues. The Physics course will also provide a foundation in physics knowledge, understanding and skills for those students who wish to pursue tertiary study in science, engineering, medicine and technology.