



St Norbert
College



Curriculum Handbook ATAR

2020 EDITION



Table of Contents

Table of Contents	2
Senior School at St Norbert College	6
Student Life at St Norbert College.....	7
Student Ministry	7
Christian Service Learning	8
College Graduation Requirements.....	8
WACE Graduation Requirements.....	9
Planning Your Course	11
Senior School Curriculum	11
Australian Tertiary Admission Rank (ATAR)	12
Selecting an ATAR University Pathway	13
Minimum Entry Requirements (MER)	13
Changing Units.....	14
Study Line	14
Certification of Student Achievement.....	15
Endorsed Programs	17
Tertiary Institutions Service Centre.....	18
The University of Notre Dame Australia.....	18
Curriculum Overview.....	19
Religious Education	21
Unit 1 Religion and Life (A1REL)	21
Unit 2 Religion and Life (A2REL)	22
Unit 3 Religion and Life (ATREL)	22
Unit 4 Religion and Life (ATREL)	22
English	23
English.....	23
Unit 1 English (A1ENG)	23
Unit 2 English (A2ENG)	24
Unit 3 English (ATENG)	24
Unit 4 English (ATENG)	24

English as a Second Language/Dialect	25
Unit 1 English as a Second Language/Dialect (A1ELD)	25
Unit 2 English as a Second Language/Dialect (A2ELD)	26
Unit 3 English as a Second Language/Dialect (ATELD)	26
Unit 4 English as a Second Language/Dialect (ATELD)	27
Literature	28
Unit 1 Literature (A1LIT)	28
Unit 2 Literature (A2LIT)	28
Unit 3 Literature (ATLIT)	29
Unit 4 Literature (ATLIT)	29
Health and Physical Education	30
Health Studies	30
Unit 1 Health Studies (A1HEA).....	30
Unit 2 Health Studies (A2HEA).....	31
Unit 3 Health Studies (ATHEA).....	31
Unit 4 Health Studies (ATHEA).....	31
Physical Education Studies	32
Unit 1 Physical Education Studies (A1PES)	32
Unit 2 Physical Education Studies (A2PES)	32
Humanities and Social Sciences	33
Accounting and Finance	33
Unit 1 Accounting and Finance (A1ACF).....	33
Unit 2 Accounting and Finance (A2ACF).....	33
Unit 3 Accounting and Finance (ATACF).....	34
Unit 4 Accounting and Finance (ATACF).....	34
Economics	35
Unit 1 Economics (A1ECO).....	35
Unit 2 Economics (A2ECO).....	35
Unit 3 Economics (ATECO).....	36
Unit 4 Economics (ATECO).....	36
Geography	37
Unit 1 Geography (A1GEO)	37
Unit 2 Geography (A2GEO)	38

Modern History	39
Unit 1 Modern History (A1HIM)	39
Unit 2 Modern History (A2HIM)	40
Languages Other Than English	41
Japanese	41
Unit 1 Japanese: Second Language (A1JSL)	41
Unit 2 Japanese: Second Language (A2JSL)	42
Unit 3 Japanese: Second Language (ATJSL)	42
Unit 4 Japanese: Second Language (ATJSL)	43
Mathematics	44
Mathematics Applications	44
Unit 1 Mathematics Applications (A1MAA).....	44
Unit 2 Mathematics Applications (A2MAA).....	45
Unit 3 Mathematics Applications (ATMAA).....	45
Unit 4 Mathematics Applications (ATMAA).....	46
Mathematics Methods	47
Unit 1 Mathematics Methods (A1MAM).....	47
Unit 2 Mathematics Methods (A2MAM).....	47
Unit 3 Mathematics Methods (ATMAM)	48
Unit 4 Mathematics Methods (ATMAM)	48
Mathematics Specialist	49
Unit 1 Mathematics Specialist (A1MAS).....	49
Unit 2 Mathematics Specialist (A2MAS).....	50
Unit 3 Mathematics Specialist (ATMAS)	50
Unit 4 Mathematics Specialist (ATMAS)	51
Science	52
Chemistry	52
Unit 1 Chemistry (A1CHE).....	52
Unit 2 Chemistry (A2CHE).....	52
Unit 3 Chemistry (ATCHE)	53
Unit 4 Chemistry (ATCHE)	53
Human Biology	54
Unit 1 Human Biology (A1HBY).....	54

Unit 2 Human Biology (A2HBY).....	54
Unit 3 Human Biology (ATHBY).....	55
Unit 4 Human Biology (ATHBY).....	55
Physics	56
Unit 1 Physics (A1PHY).....	56
Unit 2 Physics (A2PHY).....	56
Unit 3 Physics (ATPHY).....	57
Unit 4 Physics (ATPHY).....	57
Psychology	58
Unit 1 Psychology (A1PSY)	58
Unit 2 Psychology (A2PSY)	58
Unit 3 Psychology (ATPSY)	59
Unit 4 Psychology (ATPSY)	59
Technologies	60
Computer Science	60
Unit 1 Computer Science (A1CSC)	60
Unit 2 Computer Science (A2CSC)	60
Unit 3 Computer Science (ATCSC)	61
Unit 4 Computer Science (ATCSC)	61
The Arts	62
Dance	62
Unit 1 Dance (A1DAN)	62
Unit 2 Dance (A2DAN)	63
Design	64
Unit 1 Design (A1DES).....	64
Unit 2 Design (A2DES).....	65
Unit 3 Design (ATDES).....	65
Unit 4 Design (ATDES).....	66
Visual Arts	67
Unit 1 Visual Arts (A1VAR)	67
Unit 2 Visual Arts (A2VAR)	68
Unit 3 Visual Arts (ATVAR)	68
Unit 4 Visual Arts (ATVAR)	69

Senior School at St Norbert College



Dear Parents and Students,

From our somewhat humble beginnings in 1965, St Norbert College has always strived to offer a rich educational program within the context of a Christian environment, based on respect for the dignity of the individual. An education at St Norbert College will equip our students to be life-long learners, able to meet future challenges with increased confidence.

As our senior students embark on the final years of their secondary school life, their journey and thinking towards post school destinations begins in earnest.

This handbook and the accompanying course selection process, is prepared to ensure that each student has the very best opportunity to select an appropriate pathway that will be of personal benefit to them into the future. To ensure the best outcomes, the subject selection process requires a significant partnership between staff, students and families.

Please take the time to read through this handbook together, as a resource for information, covering the Western Australian Certificate of Education (WACE) and the St Norbert College Graduation requirements.

Our College prides itself on offering a breadth and depth of course options to allow our students to choose courses that best suit their gifts, talents, interests and abilities, all key ingredients that lead to achievement at their highest potential.

I wish all of our students well and challenge them always, as our College motto states, to be 'Prepared for all good works'.

Simon Harvey
Principal

Student Life at St Norbert College

Student Ministry

Student Ministry creates opportunities for all St Norbert College students to become leaders in the College community. Through participating in a number of retreat and Christian service experiences, students are encouraged to develop and demonstrate their love for others.

Year 11 Student Ministers discover and practice various forms of prayer and liturgy. From being involved in leading at whole school liturgical events to personal and reflective prayer opportunities. These experiences help them discover more about themselves and about God in their lives.

The “Encounter” Retreat in Year 11 is an essential component of the Year 10-11 Christian Service Learning program “Prepared for all Good Works”. It is the ‘reflection’ element of the program when the students are given the opportunity to spend an extended period of time reflecting on their days of Christian service. It enables them to finish their written responses to the reflection questions in their journals and to share their experiences in a variety of settings – with one peer, in small groups and in a larger group.

This reflection process is then extended whereby the students are encouraged to connect their experience with the Christian story. The final phase of this retreat calls on students to take further action – the praxis. Having made a commitment to ongoing discipleship and to “doing justice”, students leave the retreat with a determination to be ‘Prepared for all Good Works.’

Year 12 Student Ministers discover and practice various forms of prayer and liturgy; from being involved in leading whole school liturgical events to personal and reflective prayer opportunities. These experiences help Year 12 students to discover more about themselves and God.

Year 12 students participate in a Retreat Day run by the Youth Mission Team. The theme of this Retreat is Religion and people’s lives. Students will reflect on the lives of those around us and the role that religion plays in their life. They will also have an opportunity to participate in a prayerful reflection at the conclusion of the day.

KAIROS (a three-day retreat) is a senior voluntary retreat offered twice to students in Year 11 and Year 12. Kairos is a Greek word that means, “The Lord’s Time”. It is judged not by its succession or duration but by its value, the intensity of the experience of God’s presence in the midst of the Christian community. KAIROS aims to give students an experience of Christian community, to open the eyes of the students to their own goodness, to the goodness of God, and to develop Christian Leadership.

KAIROS aims to give the senior students an experience of Christian community, to open the eyes of the students to their own goodness, as well as to the goodness of God and to develop Christian Leadership.

Christian Service Learning

"Christian Service-Learning in Catholic schools is a critical educational activity that provides opportunities for students to reflect on and integrate the principles of Catholic Social Teachings into practical experiences of service to others in society." *WA Catholic Education Office*.

At St Norbert College, all students in Years 7 to 12 are expected to complete the Christian Service Learning Program ("Prepared for All Good Works"). The Senior Student part of this program is launched at the end of Year 10. It is expected that students complete a minimum of 20 hours service by the end of Week 1, Term 2 Year 11. Service to others is an excellent vehicle for bringing love and goodness alive in a person's life. Students, at the end of Year 10 or the start of Year 11 go out into the community to discover for themselves what agencies there are which serve those less fortunate than themselves through the compulsory "Prepared For All Good Works" program.

This program is a very important part of St Norbert College's commitment to the development of young men and women as leaders in our society dedicated to service to others. Through working with people who have different abilities and experiences to themselves, students will be challenged to appreciate the gifts that others have to offer them. They will also be given the opportunity to use their skills and talents to enhance the lives of people in need. This may include for example working with the elderly, working with people who have disabilities, working with the homeless, etc.

During the service period, each student is required to complete a journal, which becomes the primary focus of the Encounter Retreat – an opportunity to reflect and learn from their service experience.

Students in Year 12 have the option of giving service to others from within a community-based agency which serves those less fortunate than themselves.

College Graduation Requirements

For a student to graduate from St Norbert College they **must**:

- complete 20 hours of Christian Service Learning (with an outside agency) to be completed by the end of Week 1, Term 2, Year 11
- complete Year 11 & 12 Religion & Life Course of Study to a satisfactory standard
- have a strong attendance record above 90% over Year 11 and Year 12
- maintain their "Good Standing"

Failure to complete the Christian Service Learning requirement by the specified time will result in exclusion from attending the Year 12 Ball and may jeopardise attendance at other College events.

WACE Graduation Requirements

Breadth and depth requirement	<p>Completion of a minimum of 20 units or the equivalent. This requirement must include at least: (notes 1, 2, 3, 4)</p> <ul style="list-style-type: none"> • 10 units or the equivalent at Year 12 • two Year 11 units from an English course and one pair of Year 12 units from an English course • one pair of units completed in Year 12 from each of List A (arts/languages/social sciences) and List B (mathematics/science/technology).
Achievement standard requirement	<ul style="list-style-type: none"> • Achievement of at least 14 C grades or higher (or the equivalent) in Year 11 and 12 units, with a minimum of six C grades or the equivalent at Year 12. (notes 5 and 6) • Completion of at least four Year 12 ATAR courses or of a Certificate II (or higher) VET qualification. <p>NOTE: For Year 12 2021, students may also complete five General courses or the equivalent.</p>
Literacy and numeracy standard	<ul style="list-style-type: none"> • Completion of at least four units of an English course post-Year 10 and studied over at least two years. • Demonstration of the minimum standard of literacy and numeracy. (notes 7 and 8)
Explanatory notes relating to WACE requirements – 2020 and beyond	<ol style="list-style-type: none"> 1. The breadth-and-depth requirement can be met through ATAR, General and Foundation courses. The achievement standard can be met through ATAR, General, VET industry specific and Foundation courses. 2. Of the 20 units required for a WACE, up to a maximum of four Year 11 units and four Year 12 units may be substituted by VET qualifications and/or endorsed programs. A student may choose to substitute using only VET qualifications (up to a total of eight units) or using endorsed programs (up to a total of four units) or using a combination of VET and endorsed programs (up to a total of eight units but with a maximum of four units with endorsed programs). 3. Students are able to substitute the course unit requirement with unit equivalents achieved through the completion of AQF VET qualification at Certificate I, II, III and higher (see <u>Section 4</u>) and/or endorsed programs (see <u>Section 5</u>). 4. Students can repeat units. However, those units that have the same unit code, e.g. AEENG, and are repeated, do not contribute to the WACE requirements more than once. 5. Students enrolled in a Year 12 ATAR course must sit the external examination in that course. If students do not sit, or do not make a genuine attempt in this examination, the grades for the pair of units completed in that year will not contribute to the calculation of the achievement standard, but they will still

- count in the breadth-and-depth requirement. Students who do not sit the examination will not receive a course report. Year 12 students enrolled in Units 3 and 4 in a General or Foundation course must sit the EST in that course.
6. Both VET qualifications and endorsed programs can indirectly contribute to the WACE standard requirement of a C grade in at least 14 units. A C grade in a maximum of eight units (four in Year 11 and four in Year 12) can be replaced by unit equivalents from VET qualification and/or endorsed programs. Of these eight unit equivalents, a maximum of four can be from endorsed programs (two in Year 11 and two in Year 12).
 7. The literacy and numeracy standard can be met either through the Online Literacy and Numeracy Assessment (OLNA) or by achieving Band 8 or above in the associated components of reading, writing or numeracy in the Year 9 NAPLAN assessments. Students undertaking the OLNA will be required to satisfy both the reading and writing components in order to demonstrate the minimum WACE literacy standard.
 8. If students do not demonstrate the literacy and numeracy standard by the time they exit secondary school, they can apply to the Authority to re-sit the assessment at any age.

Planning Your Course

Senior School Curriculum

The curriculum provided at St Norbert College recognises that our students have different learning needs and aspirations. We therefore offer a wide and varied curriculum suited to the needs of students who are University bound, those bound for State Training Providers, and those seeking an apprenticeship or employment on graduating from Year 12.

Senior school courses are delivered based on the requirements of the course and the resource considerations of the College. Some courses have practical components and students will be required to both study appropriate theory as well as demonstrate their skills through practical tasks. Some courses may be delivered using an online methodology. This may be done through our partnership with the Virtual School Network through Catholic Education Western Australia or through arrangements with Registered Training Organisations for certificate courses.

What types of courses are there?

- **ATAR courses:** For students who are aiming to go to University and will need to sit a compulsory external exam which will get them an ATAR.
- **General courses:** For students aiming to enter further training or the workforce straight from school. These are not examined however students studying General courses will be required to sit the Externally Set task (EST) for that course in Semester One, Year 12.
- **Foundation courses:** For those students who need extra support to meet the literacy and numeracy standard by the end of Year 12.
 - *Only students who have not demonstrated the minimum achievement in the relevant components of the OLNA may enrol in Foundation courses.*
- **Preliminary courses:** These have been developed for students who have been identified as having a learning difficulty and/or an intellectual disability. They provide a relevant option for students who:
 - cannot access the ATAR or General course content with adjustment and/or disability provisions
 - require modified and/or independent education plans.

Preliminary courses do not contribute to achievement of the WACE.

NEED MORE INFORMATION? www.scsa.wa.edu.au

Students need to consider a number of factors when selecting courses:

1. Academic Ability

In order to achieve success in many Senior School courses, students need to have demonstrated a high degree of academic ability and achievement in courses from their previous years of study. Without this background, students invariably have difficulty with the course content. It is essential to take careful note of subject Minimum Entry Requirements (MER) and teacher recommendations when selecting courses to study.

2. Interests

The course choice system gives students the opportunity to pursue their particular interests at whatever level they are able to perform.

3. Career Aspirations

Whether planning to seek employment after Secondary Graduation, or to continue with further studies (Vocational Training, University or other), students should choose courses that will maximise their options for the future.

Students should also be aware that many Vocational qualifications could lead to University entry with advanced standing (i.e. a sufficiently high ATAR is not the only avenue to University entrance).

It should be noted that courses only run if there are sufficient numbers to justify a class.

Australian Tertiary Admission Rank (ATAR)

The Australian Tertiary Admission Rank (ATAR) is the basis of admission to most University courses.

The ATAR ranges between zero and 99.95. It reports your rank relative to all other WA students in Year 12 and takes into account the number of students with a Tertiary Entrance Aggregate (TEA) as well as the number of people of Year 12 School leaving age in the population of this State. An ATAR of 75.00 indicates that you have an overall rating equal to or better than 75% of the Year 12 School leaving age population in Western Australia.

The ATAR is derived from the Tertiary Entrance Aggregate (TEA). The TEA will be calculated by adding the best four or five scaled scores in Stage 2 or 3 Units, providing that for school candidates, at least two different units of the Course have been completed. No course can be counted more than once.

In calculating the scaled score for ATAR courses, equal weight is given to the final school score and the final examination score, except where courses are taken on a private basis.

Selecting an ATAR University Pathway

Students who select an ATAR pathway:

- Like to study theories and concepts
- Like to engage in high-order and critical thinking
- Have strong literacy and writing skills
- Have well-developed study skills and habits
- Want to study for a further three or more years when leaving school

The advantages of an ATAR pathway include:

- Generates an ATAR that can be used for direct university entry
- Enables students to develop higher-order thinking skills and analysis
- Is rigorous and requires dedication and commitment
- Gives the students the opportunity to develop strong study habits and work ethic

Students selecting an ATAR pathway must have achieved the Minimum Entry Requirement (MER) before being accepted into this pathway. This is a demanding pathway and students must demonstrate through results and work ethic that they are dedicated to their studies. Students must select a **minimum** of five ATAR subjects. Depending on the option they choose they may also have the opportunity to complete a General subject or VET Certificate.

Minimum Entry Requirements (MER)

In order for students to enrol in an ATAR course, they must first achieve a perquisite grade and/or result in order to be accepted into the course. This is known as the Minimum Entry Requirement (MER). The Minimum Entry Requirement is based on the minimum standard of achievement a student must demonstrate in order to successfully pass their chosen course in Year 11 and Year 12. This level of achievement has been determined based on the complexity of the course and on the success rates of students in years past.

For students entering Year 11, they must achieve the Minimum Entry Requirement at the conclusion of Semester One in Year 10. Students must maintain this result throughout the rest of Year 10. In some cases, students who achieve the Minimum Entry Requirement at the end of Semester Two will be allowed to apply for entry into an ATAR course, however this will also be determined by compatibility with the timetable and existing class numbers.

For students entering Year 12, they must maintain a result above the prescribed Minimum Entry Requirement during Year 11 to continue into a course in Year 12. Those students who do not meet this standard may be required to change their Year 12 subject selection. Those students who fail to achieve the Minimum Entry Requirements in more than one subject may be required to change to a Vocational Pathway. In some cases, this may need to occur at the conclusion of Semester One in Year 11.

Any application for a student to enter a course without having demonstrated the Minimum Entry Requirement must be approved by both the Head of Learning Area and the Deputy Principal. This will only happen in exceptional circumstances.

Changing Units

Before contemplating any change, parents and students should check that the intended set of course units meets the requirements of Secondary Graduation, Tertiary Entrance and (if appropriate) the entrance to a particular faculty. Such changes are influenced by the advice given by teachers, the Dean of Studies, the Deputy Principals, and the availability of the course unit on the grid and room in that class.

In selecting a new course unit, students should ensure that they meet the Minimum Entry Requirements for the course. Beware that changing courses is not a guarantee of success – one should examine the reasons for failure up to this point. In some cases it will be better to continue with the course rather than to commence an untried subject.

The Deputy Principal processes the applications for those students who, having started with one course, wish to change to another. However, there is a time beyond which such changes cannot be made. Even if an application is made prior to the cut-off date, it may not be possible to change due to the desired class being full.

The last day for changing courses is the Friday of Week 4, Term 1 2020

Study Line

Students are expected to be in class for the entire school day studying a variety of subjects. Schools do vary this but only where *exceptional circumstances* warrant. At St Norbert College students may apply to drop a subject and have a study line instead provided they meet the exceptional circumstances criteria indicated below:

Criteria 1

That they are not at risk of failing to achieve Secondary Graduation - WACE

Criteria 2

That they will still have 5 ATAR subjects (Year 12 only)

Criteria 3

Students are engaged in studying an online Certificate or Uniready course that where on line is granted for the completion of work.

Criteria 4

Their personal circumstances are such that without a study line they are at risk of not being able to graduate. For example, they are a member of a national sporting team.

Certification of Student Achievement

Western Australian Certificate of Education (WACE)

This certificate is issued to Year 12 students who meet the specified requirements for WACE graduation.

Certificate of Distinction and Certificate of Merit

These certificates are awarded to students who meet the eligibility criteria listed.

Certificates of merit and certificates of distinction recognise student achievement in the WACE and are dependent on the degree of difficulty of the courses and programs undertaken, together with the student's level of achievement. These awards will be based on the grades awarded to students by their schools.

A certificate of merit or a certificate of distinction is to be awarded to each eligible student who, in their last three consecutive years of senior secondary school WACE enrolment, obtains:

Certificates of merit	150–189 points
Certificates of distinction	190–200 points

Calculating points for the achievement of certificates of merit and certificates of distinction:

Points per unit	ATAR course	General course	Foundation course	VET industry qualification	Maximum points per VET qualification
10	A				
9	B			Certificate IV+ Replaces two Year 11 and four Year 12 units	54
8		A		Certificate III Replaces two Year 11 and four Year 12 units	48
7					
6				Certificate II Replaces two Year 11 and two Year 12 units	24

Western Australian Statement of Student Achievement (WASSA)

A statement of student achievement is issued to all Year 12 students at the completion of their secondary schooling. The WASSA lists all courses and programs that a student has completed and the grades and marks achieved.

The WASSA formally records, as relevant:

- achievement of WACE requirements
- achievement of literacy (reading and writing) standard
- achievement of numeracy standard
- achievement of exhibitions and awards
- school grades, school marks, and combined scores in ATAR units *
- school grades and school marks in General and Foundation units *
- completed Preliminary units
- completed VET industry specific units
- successfully completed VET qualifications and VET units of competency
- completed endorsed programs
- number of community service hours undertaken (if reported by the school)

* *In Year 12, Units 3 and 4 are reported as a year-long course. In Year 11, Units 1 and 2 are reported as a year-long course unless a student completes Unit 1 and enrolls in Unit 2 in another course at the end of Semester 1. In this case, Unit 1 and Unit 2 will be reported separately.*

ATAR Course Report

An ATAR course report is issued to students (excluding private candidates*) who sit an ATAR course examination in that course. The ATAR course report records:

- school marks**
- moderated school marks**
- examination marks**
- combined score
- state-wide distribution of combined scores in that course
- the number of candidates for that examination.

* *Private candidates will receive a letter from the Authority notifying them of their ATAR course examination mark.*

** *A course that has a practical examination component will have the written and practical marks reported separately.*

The ATAR course report shows how the student performed relative to all other students who completed the course (represented by a location on a graph).

Endorsed Programs

An endorsed program is a significant learning program that has been developed for senior secondary students. The program may have been developed by the School Curriculum and Standards Authority, or it may have been developed by a private provider or a school and subsequently endorsed by the Authority.

Each endorsed program consists of a series of lessons, classes and/or activities designed to lead to the achievement of a common goal or set of learning outcomes. Endorsed programs can be delivered as part of the school curriculum or as extra-curricular activities.

All endorsed programs successfully completed and reported to the Authority by the school

- Western Australian Statement of Student Achievement
- may contribute towards the breadth-and-depth requirement of the WACE
- may contribute towards the C grade requirement of the WACE.

Each endorsed program is allocated one, two, three or four unit equivalents.

A student who will graduate in 2021 will be able to count a maximum of 4 unit equivalents from endorsed programs for WACE purposes, two in Year 11 and two in Year 12.

Programs are endorsed in three categories:

1. Authority-developed endorsed programs

These endorsed programs are developed by the Authority to provide WACE recognition for students undertaking activities of a similar nature and for which no quality-assured certificate or award is issued.

e.g. Community Service, Tours, College Production, Workplace Learning, Music Performance Ensembles

2. Provider-developed endorsed programs

These endorsed programs are developed by a private provider such as a university, community organisation or training institution. Provider-developed endorsed programs recognise structured learning programs that result in the attainment of a quality-assured certificate or award. E.g. Dance, Cadets, Music, Lifesaving, Red Cross, Duke of Edinburgh, Keys for Life

3. School-developed endorsed programs

These endorsed programs are developed by individual schools in response to a particular need which cannot be met through a WACE course, a VET qualification or another endorsed program.

NEED MORE INFORMATION? www.scsa.wa.edu.au

Tertiary Institutions Service Centre

The Tertiary Institutions Service Centre (TISC) is an incorporated body established in 1975 by **Curtin University, Edith Cowan University, Murdoch University and The University of Western Australia**, which provides the following services:

- Processing of applications for admission to undergraduate courses at the above Universities.
- Conducting the Special Tertiary Admissions Test (STAT).
- Scaling WACE results and calculating ATARs for students in Western Australia.

School Leavers (including repeating students) will have to meet the following four requirements for courses at Curtin University, Edith Cowan University, Murdoch University and The University of Western Australia.

- 1 Western Australian Certificate of Education (WACE) Achievement of WACE is a mandatory requirement by all universities.
- 2 Competences in English
Competence in English is usually achieved by a scaled score of at least 50 in English; English as an Additional Language Dialect (EALD) for eligible students; or Literature. The universities will also concede competence in English on the basis of standardised exam or standardised moderated school assessments.
- 3 Australian Tertiary Admission Rank (ATAR)
The TEA is calculated by adding a student's best four scaled scores. These may be in any combination of courses subject to unacceptable combinations. No course can be counted more than once.
- 4 Pre-requisites
For some university courses it is also necessary to meet prerequisite requirements. Generally, a scaled score of 50 or more in a Year 12 course is required for prerequisite purposes; however mathematics prerequisites differ across university courses.

The University of Notre Dame Australia

The University of Notre Dame Australia seeks to enrol students who wish to make a special contribution to society. They use a comprehensive admissions process that goes beyond the use of a single score. Prospective students apply directly to the University for admission.

The admissions process is personal. Every applicant is considered on an individual basis.

Notre Dame bases entry upon a range of factors:

- Personal qualities and motivation to study
- Contribution to school and community life
- Academic record
- Interview

Curriculum Overview

Year 11

Students who select an ATAR pathway in Year Eleven must meet the following requirements:

- Select at least 5 ATAR courses from a total of 6 courses
- Have selected courses for which they have met the Minimum Entry Requirements (MER) and
- Select at least one course from List A and one from List B

The range of study programs available to Year 11 ATAR Pathway students is shown below.

	ATAR Pathway A 6 ATAR	ATAR Pathway B 5 ATAR	ATAR Pathway C 5 ATAR
Subject Choice 1	English A1ENG Literature A1LIT English as a Second Language A1ELD	English A1ENG Literature A1LIT English as a Second Language A1ELD	English A1ENG Literature A1LIT English as a Second Language A1ELD
Subject Choice 2	Religious Education A1REL	Religious Education A1REL	Religious Education G1REL
Subject Choice 3	List B ATAR	List B ATAR	List B ATAR
Subject Choice 4	List A / B ATAR	List A / B ATAR	List A / B ATAR
Subject Choice 5	List A / B ATAR	List A / B ATAR	List A / B ATAR
Subject Choice 6	List A / B ATAR	List A / B General VET Cert (in-school) VET Cert (online)	List A / B ATAR

List A (arts/languages/social science)	List B (mathematics/science/technology)
DAN Dance A1DAN, A2DAN	ACF Accounting & Finance A1ACF, A2ACF
ECO Economics A1ECO, A2ECO	CHE Chemistry A1CHE, A2CHE
ENG English A1ENG, A2ENG	CSC Computer Science A1CSC, A2CSC
ELD English as a Second Language/Dialect A1ELD, A2ELD	DES Design A1DES, A2DES
GEO Geography A1GEO, A2GEO	HBY Human Biology A1HBY, A2HBY
HEA Health Studies A1HEA, A2HEA	MAA Mathematics Applications A1MAA, A2MAA
HIM Modern History A1HIM, A2HIM	MAM Mathematics Methods A1MAM, A2MAM
JSL Japanese A1JSL, A2JSL	MAS Mathematics Specialist A1MAS, A2MAS
LIT Literature A1LIT, A2LIT	PES Physical Education Studies A1PES, A2PES
REL Religion and Life A1REL, A2REL	PHY Physics A1PHY, A2PHY
VAR Visual Art A1VAR, A2VAR	PSY Psychology A1PSY, A2PSY

Year 12

Students who select an ATAR pathway in Year Twelve must meet the following requirements:

- Have selected courses for which they have met the Year 11 minimum entry requirements and
- Select at least one course from List A and one from List B
- Select a total of 6 courses

The range of study programs available to Year 12 ATAR Pathway students is shown below.

	ATAR Pathway A 6 ATAR	ATAR Pathway B 5 ATAR	ATAR Pathway C 5 ATAR	ATAR Pathway D 4 ATAR
Subject Choice 1	English ATENG Literature ATLIT Second Language ATELD	English ATENG Literature ATLIT Second Language ATELD	English ATENG Literature ATLIT Second Language ATELD	ATAR Pathway D will only be approved following an interview with the Dean of Studies or the Deputy Principal.
Subject Choice 2	Religious Education ATREL	Religious Education ATREL	Religious Education GTREL	
Subject Choice 3	List B ATAR	List B ATAR	List B ATAR	
Subject Choice 4	List A / B ATAR	List A / B ATAR	List A / B ATAR	
Subject Choice 5	List A / B ATAR	List A / B ATAR	List A / B ATAR	
Subject Choice 6	List A / B ATAR	List A / B GENERAL or VET Certificate	List A / B ATAR	

List A (arts/languages/social science)		List B (mathematics/science/technology)	
ECO Economics ATECO		ACF Accounting and Finance ATACF	
ENG English ATENG		CHE Chemistry ATCHE	
ELD English as a Second Language/Dialect ATELD		CSC Computer Science ATCSC	
HEA Health Studies ATHEA		DES Design ATDES (Graphics)	
JSL Japanese ATJSL		HBY Human Biology ATHBY	
LIT Literature ATLIT		MAA Mathematics Applications ATMAA	
REL Religion and Life ATREL		MAM Mathematics Methods ATMAM	
VAR Visual Arts ATVAR		MAS Mathematics Specialist ATMAS	
		PHY Physics ATPHY	
		PSY Psychology ATPSY	

Religious Education

Head of Learning Area: Miss Michelle Ronchi

Phone: 9350 5433 / **Email:** mronchi@norbert.wa.edu.au

The ATAR Religion and Life course provides students with opportunities to learn about religion and the interplay that occurs between religion, societies and people. Students develop an informed and critical understanding of this interplay by drawing from a detailed knowledge of one or more religions.

Every religion offers a system of beliefs and practices. In the ATAR Religion and Life course, students explore one or more religions and investigate the characteristics of religion, their origins, foundations, social influence and development over time. They analyse the role religion has played in society and understand the challenges and opportunities religions face. The connections between religion and life occur in many areas of human activity. Religion motivates and influences how people interact with each other and the world around them.

Students employ research and learning skills that enable them to use a range of primary and secondary sources to investigate the interplay between religion and life.

Unit 1 Religion and Life (A1 REL)

Minimum Entry Requirements

'B' grade and a mark of 70% in Year 10 Religious Education Mainstream or 'C' grade and a mark of 60% in Year 10 Religious Education Extension

and

'B' grade and a mark of 65% in Year 10 English Mainstream or 'C' grade and a mark of 55% in Year 10 English Extension

Description

The focus of this unit is the place of religion in society. It examines the responses of people to religion, in particular how people understand the response of religion to their concerns, needs and questions. Students develop the skills required for conducting an inquiry, processing information, and communicating findings about the interplay between religion and life

Future Pathways

Unit 2 Religion and Life ATAR (A2REL)

Unit 2 Religion and Life (A2REL)

Description

The focus of this unit is religious identity and purpose. It investigates how religion shapes, forms and supports people in life. The unit also examines how religion impacts on and interacts with, groups in society. Students develop the skills required for conducting an inquiry, processing information, and communicating findings about the interplay between religion and life.

Future Pathways

Units 3 and 4 Religion and Life ATAR (ATREL) or Units 3 and 4 Religion and Life General (GTREL) in Year 12

Unit 3 Religion and Life (ATREL)

Minimum Entry Requirements

'C' grade and mark of 55% in Units 1 and 2 of Religion and Life

Description

The focus for this unit is the connection between past and present experiences of religion. Students analyse the impact of changes within society and how these changes shape the way individuals and groups interact with religion. They further develop research skills for conducting an inquiry, processing information, and communicating findings about the interplay between religion and life.

Unit 4 Religion and Life (ATREL)

Description

The focus for this unit is the interplay between religion and life. Students explore how religion responds to, and interacts with, issues that arise within society. They further develop research skills for conducting an inquiry, processing information, and communicating findings about the interplay between religion and life.

Future Pathways

Studies in Year 12 can lead to post high school courses in a number of different areas. Theology is an ancient discipline developed within the Christian tradition as the critical study and interpretation of the sources, history, beliefs and practices of that religious tradition. Courses are offered in Theology, Teaching and Social Justice at Notre Dame, Murdoch and Edith Cowan Universities. Various Schools of Theology also offer Certificate IV Courses in Christian Ministry, Theology and Christian Counselling.

English

Head of Learning Area: Mrs Penny Mulley

Phone: 9350 5433 / Email: pmulley@norbert.wa.edu.au

English

English is the study of the universal, controversial and challenging human experiences in the world we live in. Through the study of written and visual texts students are encouraged to explore their personal values and attitudes and create understandings of texts using their own, author and situational context. Students are encouraged to view the world both from their own perspective and others in order to further understand and participate in the world. Standard Australian English is a basis for all means of communication in post school study or employment.

Unit 1 English (A1 ENG)

Minimum Entry Requirements

'C' grade and mark of 55% in Year 10 English Extension or 'B' grade and mark of 65% in Year 10 English Mainstream. Students must have also attained Category 3 for OLNA Reading and Writing.

Students wishing to undertake this unit but have not met the minimum entry requirements are required to meet with the Head of Learning Area.

Description

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

Future Pathways

Unit 2 English ATAR (A2ENG)

Unit 2 English (A2ENG)

Description

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

Future Pathways

Units 3 and 4 English ATAR in Year 12 (ATENG)

Unit 3 English (ATENG)

Minimum Entry requirement

'C' Grade and a mark of 55% in Units 1 and 2 of English ATAR

Description

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

Unit 4 English (ATENG)

Description

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

Future Pathways

University Entrance

English as a Second Language/Dialect

The English as an Additional Language or Dialect (EAL/D) ATAR course offers students the opportunity to expand their understanding of cultural similarities, differences and values. Students use knowledge and skills from their existing languages and cultures to become cross-cultural learners. They will investigate how the use of language reflects culture and represents ideas, attitudes and values across cultures, particularly the Australian context. Students will explore how language can be a powerful tool to communicate ideas.

In the ATAR EAL/D course students will use the language modes of listening, speaking, reading, viewing and writing to develop their skills in Standard Australian English to build effective communication skills.

Unit 1 English as a Second Language/Dialect (A1 ELD)

Minimum Entry Requirements

Consultation with Head of English: Students must meet the SCSA requirements for EAL/D
'C' grade and a mark of 55% in Year 10 English Extension or
'C' grade and a mark of 65% in Year 10 English Mainstream or,

Description

Unit 1 focuses on investigating how language and culture are interrelated and expressed in a range of contexts. A variety of oral, written and multimodal texts are used to develop understanding of text structures and language features. Students explore the relationship between these structures and features and the context, purpose and audience of texts. The unit will enhance students' confidence in creating texts for different purposes and across all language modes in both real and imagined contexts. It will broaden their understanding of the sociocultural and sociolinguistic elements of SAE and develop skills for research and further academic study.

The thematic focus for this unit is ways of life. Using knowledge and skills from their existing languages and cultures, students learn to use English to explore wider social contexts beyond the personal and immediate community. From their position as cross-cultural learners, they examine issues and different points of views to develop, present and express ideas and opinions in relation to these.

Through the investigation of a range of topics, students explore their relationships with cultures and deepen their understanding of cultural similarities, differences and values to develop their ability to use English. Students apply their SAE skills to examine the ways language is used in relation to these topics to position the viewer and reader.

Future Pathways

Unit 2 English as a Second Language/Dialect (A2ELD)

Unit 2 English as a Second Language/Dialect (A2ELD)

Description

Unit 2 focuses on analysing and evaluating perspectives and attitudes presented in texts and creating extended texts for a range of contexts. SAE language skills for effective communication in an expanding range of contexts are consolidated. The use of cohesive text structures and language features is developed. The unit focuses on developing planning and editing skills to create extended oral, written and multimodal texts. Attitudes, values and culturally based assumptions within texts are identified, analysed and compared. Strategies for collecting, analysing, organising and presenting ideas and information are refined.

The thematic focus for this unit is making choices. Using knowledge and skills from their existing languages and cultures, students learn to use English to identify and examine choices facing themselves, their families, communities and societies in relation to issues of concern presented in a range of texts. They examine and use the ways language can be used to analyse choices, influence attitudes and effect change.

Future Pathways

Units 3 and 4 English as a Second Language/Dialect in Year 12 (ATELD)

Unit 3 English as a Second Language/Dialect (ATELD)

Minimum Entry Requirements

'C' grade and a mark of 55% in Units 1 and 2 of English as a Second Language/Dialect

Description

Unit 3 focuses on analysing how language choices are used to achieve different purposes and effects in a range of contexts. SAE language skills are developed so that they can be used to describe, inform, express a point of view and persuade for different purposes and audiences. The ways in which language choices shape meaning and influence audiences are explored through the study and creation of a range of oral, written and multimodal texts. The representation of ideas, attitudes and values and how these vary across cultures and within different contexts, particularly the Australian context, is analysed and evaluated. Effective and independent research skills are consolidated throughout the unit.

The thematic focus for Unit 3 is Australia as a cultural community. Using knowledge and skills from their existing languages and cultures, students learn to use English to further explore the concept of 'cultural schemas' and how culture influences the way in which they and other people view the world. Through the exploration of Australia as a multicultural society protecting individual freedoms, they develop an appreciation of the concept of cultural constructs. They also develop their ability to use English appropriate to audience and purpose. Their intercultural understandings enable them to apply analytical and problem-solving skills to their investigations of commonality and difference.

Students use SAE to explore how structures, patterns and audience expectations influence language and meaning and that meaning is negotiated, not given, within and across cultures.

Unit 4 English as a Second Language/Dialect (ATELD)

Description

Unit 4 focuses on analysing, evaluating and using language to represent and respond to issues, ideas and attitudes in a range of contexts. By extending and consolidating language and communication skills, critical use of SAE for a range of contexts, purposes and audiences is developed. Independent and collaborative investigation and analysis are used to explore how language and texts achieve specific purposes and effects. Extended oral, written and multimodal texts and presentations are created, adapted and refined for a variety of contexts, purposes and audiences. Effective research strategies and referencing protocols are used to present ideas, information, arguments and evidence, conclusions and recommendations.

The thematic focus for Unit 4 is language and empowerment. Using knowledge and skills from their existing languages and cultures, students learn to use English to explore the relationship between the uses of language and the concept of the power of language.

Through building on knowledge of the ways in which language can be used to influence, persuade and position people, students examine how it can also be used to privilege or marginalise individuals, social groups, ideologies, beliefs and values. Development of these understandings enables students to choose to use language appropriate for audience and purpose, moving between language varieties and situations confidently.

Students explore how cultural conceptualisations are embedded in language and how power relationships are created through persuasive and rhetorical devices. This knowledge, and the ability to select and control language to suit context, provides ‘empowerment’.

Future Pathways

University Entrance

Literature

Literature is the study of universal themes central to the world we live in through the traditional texts of prose, poetry and drama. Through close analysis of texts and consideration of reading theory and practices students develop core academic skills of analysis, synthesising and evaluation. The study of Literature develops close analysis skills central to tertiary study in all fields. It also develops ethical and philosophical skills to evaluate the world, events and people.

Unit 1 Literature (A1 LIT)

Minimum Entry Requirements

'B' grade and mark of 65% in Year 10 English Extension or 'A' grade and mark of 75% in Year 10 English Mainstream or Head of Learning Area approval. Students must have also attained Category 3 for OLNA Reading and Writing.

Description

Unit 1 develops students' knowledge and understanding of different ways of reading and creating literary texts drawn from a widening range of historical, social, cultural and personal contexts. Students analyse the relationships between language, text, contexts, individual points of view and the reader's response. This unit develops knowledge and understanding of different literary conventions and storytelling traditions and their relationships with audiences. A range of literary forms is considered: prose fiction, poetry and drama. The significance of ideas and the distinctive qualities of texts are analysed through detailed textual study. Through the creation of analytical responses, students frame consistent arguments that are substantiated by relevant evidence. In the creation of imaginative texts, students explore and experiment with aspects of style and form.

Future Pathways

Unit 2 Literature (A2LIT)

Unit 2 Literature (A2LIT)

Description

Unit 2 develops students' knowledge and understanding of intertextuality, the ways literary texts connect with each other. Drawing on a range of language and literary experiences, students consider the relationships between texts, genres, authors, readers, audiences and contexts. The ideas, language and structure of different texts are compared and contrasted. Exploring connections between texts involves analysing their similarities and differences through an analysis of the ideas, language used and forms of texts. Students create analytical responses that are evidence-based and convincing. By experimenting with text structures and language features, students understand how their imaginative texts are informed by analytical responses.

Future Pathways

Units 3 and 4 Literature in Year 12 (ATLIT)

Unit 3 Literature (ATLIT)

Minimum Entry Requirements

'C' grade and mark of 55% in Units 1 and 2 of Literature or Head of Learning Area approval

Description

Unit 3 develops students' knowledge and understanding of the relationship between language, culture and identity in literary texts. Students inquire into the power of language to represent ideas, events and people, comparing these across a range of texts, contexts, modes and forms. Through critical analysis and evaluation, the values and attitudes represented in and through texts and their impact on the reader are examined. Throughout the unit, students create analytical responses that are characterised by a confident, engaging style and informed observation. In creating imaginative texts, students experiment with language, adapt forms, and challenge conventions and ideas.

Unit 4 Literature (ATLIT)

Description

Unit 4 develops students' appreciation of the significance of literary study through close critical analysis of literary texts drawn from a range of forms, genres and styles. Students reflect upon the creative use of language, and the structural and stylistic features that shape meaning and influence response. The unit focuses on the dynamic nature of literary interpretation and considers the insights texts offer, their use of literary conventions and aesthetic appeal. Students' analytical responses demonstrate increasing independence in interpreting texts and synthesising a range of perspectives into critical and imaginative responses. In creating imaginative texts, students experiment with literary conventions and reflect on how the created text takes into account the expectations of audiences.

Future Pathways

University Entry

Health and Physical Education

Head of Learning Area: Mr Matt Price

Phone: 9350 5433 / Email: mprice@norbert.wa.edu.au

Health Studies

In this ATAR course students explore health as a dynamic quality of life. They examine the impact of social, environmental, economic and biomedical determinants on health and their collective contribution to health disparities, as well as exploring approaches to address barriers which prevent groups from experiencing better health. Students apply inquiry skills to examine and analyse health issues, develop arguments and draw evidence-based conclusions. The course also provides students with opportunities to develop skills that will enable them to pursue careers in health promotion, research or community health care.

Unit 1 Health Studies (A1 HEA)

Minimum Entry Requirements

'B' grade and mark of 65% in Year 10 Health Education

and

'B' grade and a mark of 65% in Year 10 English Mainstream or 'C' Grade and a mark of 55% in Year 10 English Extension

Description

The focus of this unit is the health of individuals and communities. Students learn about the significance of determinants and how these raises or lowers the health of individuals and communities. Health promotion is explored and used as a framework for designing approaches to improve health. Students examine personal and popular attitudes and beliefs and their impact on decision making, and develop self-management, interpersonal and key consumer health skills. Students extend their understandings of factors influencing health, and actions and strategies to protect and promote health, through investigation and inquiry processes.

Future Pathways

Unit 2 Health Studies (A2HEA)

Unit 2 Health Studies (A2HEA)

Description

The focus of this unit is the impact of a broad range of factors influencing the health of communities. Students are introduced to the concept of community development and the importance of strengthening communities through participative means where people are at the centre of health promotion action. Key health priority areas which commonly influence the health of communities and comprehensive approaches to achieving greater equity in health are studied. Students learn about measures of health, preventive strategies and examine a range of emerging ethical issues arising from contemporary health practices. The influence of beliefs, attitudes, values and norms on health behaviour is further explored, and students continue to extend their understanding of the impact of key issues influencing the health of communities through the development and application of investigative and inquiry approaches.

Future Pathways

Units 3 and 4 Health Studies in Year 12 (ATHEA)

Unit 3 Health Studies (ATHEA)

Minimum Entry Requirements

'C' grade and a mark of 55% in Units 1 and 2 of Health Studies

Description

The focus of this unit is the health of specific populations. Within Australia and across the globe, there are groups who do not enjoy the same level of health as the general population. Students learn about factors creating these disparities and ways of improving the health and wellbeing of specific groups through priority health approaches. They examine models and social justice principles which can be applied to address health inequity, and review actions and strategies focusing on reducing inequities. The influence of attitudinal and environmental influences on the health of specific groups is explored. Students examine and interpret relationships in data which explain disparities in health through the application of critical inquiry skills.

Unit 4 Health Studies (ATHEA)

Description

The focus of this unit is local, regional and global challenges to health. Despite incredible improvements to health over many years, life expectancy rates within and across populations vary considerably. Students learn about the impact of social determinants on global inequities and other challenges to health, and approaches to address barriers which prevent groups from experiencing better health outcomes. Students examine international health agencies and global and local initiatives designed to improve health. Students further refine and apply investigative skills to analyse health issues, develop well-constructed arguments, and draw evidence-based conclusions.

Future Pathways

Health industry related tertiary study and work including nursing, health sciences, medical, dentistry and counselling industries are greatly enhanced through the completion of this course.

Physical Education Studies

Physical Education Studies contributes to the development of students' physical, social and emotional growth. In the ATAR Physical Education Studies 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.

Unit 1 Physical Education Studies (A1 PES)

Minimum Entry Requirements

'B' grade and mark of 65% in Year 10 Physical Education,
and

'B' grade and mark of 65% in Science Mainstream, or 'C' grade and a mark of 55% in Year 10 Sport Science elective or Extension Science.

Description

The focus of this unit is to explore anatomical and biomechanical concepts, the body's responses to physical activity and stress management processes to improve their own performance and that of others in physical activity. The course content is divided into six interrelated content areas: Developing Physical Skills and Tactics, Motor Learning and Coaching, Functional Anatomy, Biomechanics, Exercise Physiology, and Sport Psychology.

Students will prepare for assessment in both theoretical and practical sporting contexts.

Future Pathways

Unit 2 Physical Education Studies (A2PES)

Unit 2 Physical Education Studies (A2PES)

Description

The focus of this unit is to identify the relationship between skill, strategy and the body in order to improve the effectiveness and efficiency of performance. The course content is divided into six interrelated content areas: Developing Physical Skills and Tactics, Motor Learning and Coaching, Functional Anatomy, Biomechanics, Exercise Physiology, and Sport Psychology.

Students will prepare for assessment in both theoretical and practical sporting contexts.

Future Pathways

Units 3 and 4 Physical Education Studies Year 12 (ATPES)

Humanities and Social Sciences

Head of Learning Area: Dr Alberto Runco

Phone: 9350 5433 / **Email:** arunco@norbert.wa.edu.au

Accounting and Finance

The Accounting and Finance ATAR course focuses on financial literacy and aims to provide students with the knowledge, understandings and a range of skills that enables them to make sound financial judgements. Students develop an understanding that financial decisions have far reaching consequences for individuals and business. An understanding and application of principles and practices enables students to analyse their own financial data and that of businesses and make informed decisions, forecasts of future performance, and recommendations based on that analysis.

Unit 1 Accounting and Finance (A1ACF)

Minimum Entry Requirements

'C' grade and mark of 60% in Year 10 Humanities Extension or 'B' grade and mark of 65% in Year 10 Humanities Mainstream

and

'C' grade and mark of 60% in Year 10 Mathematics Extension or 'B' grade and mark of 65% in Year 10 Mathematics Mainstream

Description

The focus for this unit is on double entry accounting for small businesses. Students apply their understanding of financial principles, systems and institutions to manage financial information and make decisions in a variety of small businesses. Students develop an understanding of the rationale for the use of particular conventions and principles and the consequences of disregarding them. Students record and process financial information using the double entry system and apply the principles of the Goods and Services Tax (GST). Students learn about the various forms of business organisations adopted by small business.

Future Pathways

Unit 2 Accounting and Finance (A2ACF)

Unit 2 Accounting and Finance (A2ACF)

Description

The focus for this unit is on accrual accounting. Students apply financial systems and principles to the operations of businesses and distinguish between cash and accrual methods of accounting. Students prepare and analyse financial reports for a variety of types of business organisations and become familiar with the main aspects of electronic processing of financial data. Students learn of the role and functions of the professional accounting and financial associations.

Future Pathways

Unit 3 and 4 Accounting and Finance in Year 12 (ATACF)

Unit 3 Accounting and Finance (ATACF)

Minimum Entry Requirements

'C' grade and mark of 55% in Units 1 and 2 of Accounting and Finance

Description

The focus for this unit is on internal management for business. Students prepare and interpret budgets and performance reports in relation to forecasting a business's future. The unit distinguishes between internal and external reporting requirements. Decision-making processes using cost accounting techniques are a feature of the unit. The unit focuses on critical analysis of financial information. The unit also explores the importance of short and long-term planning for business.

Unit 4 Accounting and Finance (ATACF)

Description

The focus for this unit is on Australian reporting entities and how they are regulated by the *Corporations Act 2001*. *The Framework for the Preparation and Presentation of General Purpose Financial Reports (The Framework)* and the Accounting Standards are used in the preparation of the financial statements for a reporting entity. The financing options of larger entities are identified and evaluated, particularly in relation to conformity with basic principles, including profitability and stability. The unit addresses corporate social disclosure issues and ethical behaviour within corporations.

Future Pathways

Unit 3 and 4 Accounting and Finance in Year 12 is an advantage to those interested in studying a Bachelor of Commerce or similar degree at University. Careers in Accounting and Finance: Accountant, Financial Planner, Financial Trader, Investment Analyst, Management Consultant, Retail Banker, Tax Adviser, Business Management, Project Management.

Economics

Economics explores the choices which all people, groups and societies face as they confront the ongoing problem of satisfying their unlimited wants with limited resources. The ATAR Economics course aims to develop students' ability to analyse the allocation, utilisation and distribution of scarce resources that determine our wealth and wellbeing. The study of Economics provides a framework for examining society's issues and identifying possible solutions which assist decision making. The emphasis of the course is on the Australian economy.

Unit 1 Economics (A1 ECO)

Minimum Entry Requirements

'C' grade and mark of 60% in Year 10 Humanities Extension or 'B' grade and mark of 65% in Year 10 Humanities Mainstream

Description

Microeconomics: This unit explores the theory that markets are an efficient way to allocate scarce resources, using real world markets with an emphasis on the Australian economy. When the forces of demand and supply do not allocate resources in a way that society would regard as efficient, equitable or sustainable, market failure can occur. Students examine examples of market failure along with a range of government policy options that can be applied to achieve more desirable outcomes. Students are also introduced to the language of economics and the use of theories and models to explain and interpret economic events and issues.

Future Pathways

Unit 2 Economics (A2ECO)

Unit 2 Economics (A2ECO)

Description

Macroeconomics: This unit explores the government's role in a modified market economy and Australia's recent (the last ten years) and contemporary (the last three years) macroeconomic performance. The cyclical fluctuations in the level of economic activity result in changes in the levels of output, income, spending and employment in the economy, which, in turn, have implications for economic growth, inflation and unemployment. Students examine the role of government, through its spending and taxing powers, which can affect the allocation and price of resources, and the level of economic activity by targeting economic objectives.

Future Pathways

Units 3 and 4 Economics in Year 12 (ATECO)

Unit 3 Economics (ATECO)

Minimum Entry Requirements

'C' grade and mark of 55% in Units 1 and 2 of Economics

Description

Australia and the Global Economy: This unit explores the linkages between economies and the concepts of globalisation, trade liberalisation and protection in relation to the Australian economy. Students examine Australia's trade, the recording of international transactions and the impact of these transactions on the Australian economy. Students examine the effects of changes in Australia's economic transactions with the rest of the world using recent (the last ten years) and contemporary (the last three years) economic data, together with economic models.

Unit 4 Economics (ATECO)

Description

Economic Policies and Management: This unit explores how economic policies and actions, such as fiscal policy, monetary policy and microeconomic policy operate in the pursuit of the Australian Government's economic objectives. Students examine the effects of the operation of policies in Australia using economic models along with recent (the last ten years) and contemporary (the last three years) economic data. Students apply the language, theories and tools of economics to develop a critical perspective on the role of these policies in the current Australian Government policy mix.

Future Pathways

Unit 3 and 4 Economics in Year 12 is an advantage to those interested in studying a Bachelor of Commerce or similar degree at University

Careers in Economics: Economist, Diplomat, Investment Analyst, Stockbroker, Financial Planner, Business Management, Project Management, Public Relations Officer, Marketing Officer, Insurance Agent, Real Estate Agent, Bank Officer, CEO – Local Government, Accountant.

Geography

The study of Geography draws on students' curiosity about the diversity of the world's places and their peoples, cultures and environments. It enables students to appreciate the complexity of our world and the diversity of its environments, economies and cultures and to use this knowledge to promote a more sustainable way of life and awareness of social and spatial inequalities.

Unit 1 Geography (A1 GEO)

Minimum Entry Requirements

'C' grade and mark of 60% in Year 10 Humanities Extension or 'B' grade and mark of 65% in Year 10 Humanities Mainstream

Description

Natural and Ecological Hazards: Natural and ecological hazards represent potential sources of harm to human life, health, income and property, and may affect elements of the biophysical, managed and constructed elements of environments. This unit focuses on understanding how these hazards and their associated risks are perceived and managed at local, regional and global levels.

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.

Students develop an understanding about using and applying geographical inquiry tools, such as spatial technologies, and skills, to model, assess and forecast risk, and to investigate the risks associated with natural and ecological hazards. Students will participate in fieldwork visiting the Hills Forest Discovery Centre in Mundaring to see the impact of wildfire on the forest biome and the steps taken to manage it.

Future Pathways

Unit 2 Geography (A2GEO)

Unit 2 Geography (A2GEO)

Description

Global Networks and Interconnections: This unit focuses on the process of globalisation and is based on the reality that we live in an increasingly interconnected world. Ours is a world in which advances in transport and telecommunications technologies have not only transformed global patterns of production and consumption but also facilitated the diffusion of ideas and elements of cultures. The unit explains how these advances in transport and communication technology have lessened the friction of distance and led to a ‘shrinking of time and space’ meaning that many cultural groups that may have been isolated in the early twentieth century are now linked across an interconnected world.

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. They also investigate the ways people embrace, adapt to, or resist the forces of international integration.

Students develop an understanding about using and applying geographical inquiry methods, tools (such as spatial technologies), and skills to investigate the transformations taking place throughout the world.

Future Pathways

Unit 3 and Unit 4 Geography in Year 12 (ATGEO)

Modern History

Studying the ATAR Modern History course enables students to become **critical thinkers** and helps shaping their **judgements** and **actions** in a rapidly changing world. Studying Modern History in Senior School is not just about knowing the events that took place - it is also a place to look for the choices people faced; the trade-offs they made; the characters they built; the risks they took. The study of Modern History will help students become adults who are aware of their duties and opportunities in our global society.

Students are exposed to a variety of **historical sources**, including government papers, extracts from newspapers, letters, diaries, photographs, cartoons, paintings, graphs and secondary sources, in order to determine the cause and effect, and the motives and forces influencing people and events. Through the process of **historical inquiry**, students are encouraged to question and evaluate historical sources; identify various representations and versions of history; use evidence to formulate and support their own interpretations; and **communicate** their findings in a variety of ways.

Unit 1 Modern History (A1HIM)

Minimum Entry Requirements

'C' grade and mark of 60% in Year 10 Humanities Extension or 'B' grade and mark of 65% in Year 10 Humanities Mainstream

Description

The Age of Imperialism (1848-1914): This unit examines developments of significance in the modern era, including the ideas that inspired them and their far-reaching consequences. Students examine one development or turning point that has helped to define the modern world. Students explore crucial changes, for example, the application of reason to human affairs; the transformation of production, capitalism and consumption, transport and communications; the challenge to social hierarchy and hereditary privilege, and the assertion of inalienable rights; and the new principles of government by consent. Through their studies, students explore the nature of the sources for the study of modern history and build their skills in historical method through inquiry.

Key conceptual understandings are: what makes an historical development significant; the changing nature and usefulness of sources; the changing representations and interpretations of the past; and the historical legacy of these developments for the Western world and beyond. By learning of the Age of Imperialism, students build an understanding of the origins of political and diplomatic tensions of the XX century, studied in Semester Two and beyond.

Future Pathways

Unit 2 Modern History (A2HIM)

Unit 2 Modern History (A2HIM)

Description

Nazism in Germany (1919-1945): This unit examines developments of significance in the modern era, including the ideas that inspired them and their far-reaching consequences. Students examine one development or turning point that has helped to define the modern world. Students explore crucial changes, for example, the application of reason to human affairs; the transformation of production, capitalism and consumption, transport and communications; the challenge to social hierarchy and hereditary privilege, and the assertion of inalienable rights; and the new principles of government by consent. Through their studies, students explore the nature of the sources for the study of modern history and build their skills in historical method through inquiry.

Key conceptual understandings are: what makes an historical development significant; the changing nature and usefulness of sources; the changing representations and interpretations of the past; and the historical legacy of these developments for the Western world and beyond.

Future Pathways

Units 3 and 4 Modern History in Year 12 (ATHIM)

Languages Other Than English

Head of Learning Area: Mrs Penny Mulley

Phone: 9350 5433 / Email: pmulley@norbert.wa.edu.au

Japanese

Mr Tony Godden

Phone: 9350 5433 / Email: agodden@norbert.wa.edu.au

Through studying Japanese students gain an understanding of both the Japanese and Australian culture and way of life. Students will build language skills to be able to communicate effectively travelling in Japan and speaking to tourists in Australia and to communicate effectively in Japan. Through the study of another culture students will assess and evaluate life in Australia. Speaking a second language lends itself to many future careers especially in the travel, trade and diplomacy fields.

The University of Western Australia has introduced a **bonus points** scheme for Year 12 students who successfully complete language study in senior school. The University has introduced a 10 per cent ATAR bonus in 2012 for students studying Languages in Year 12 regardless of the degree course for which they apply.

Unit 1 Japanese: Second Language (A1 JSL)

Minimum Entry Requirements

'B' grade and mark of 65% in Year 10 Japanese.

Students wishing to enrol in this WACE language course are required to complete an Application for Permission to enrol in August. This process ensures that each student is enrolled in the course best suited to their linguistic background (second language or background language). The application is processed by the School Curriculum and Standards Authority.

Description

The course covers topics that prepare students as much as possible for travelling to Japan, communicating with host families and travelling around Japan. The focus for this unit is **home-stay**. Students make arrangements to have an overseas student visit their home in Australia. Students explore home-stay experiences, including host family profiles, networking with friends, making arrangements, gift giving and celebrations, and typical rules and routines of home and school life. They exchange information about hobbies, interests and local events. Students explore intercultural aspects needed to arrange and prepare for home-stay.

Prescribed Topics:

- Home-stay life
- Making arrangements
- Rules of home and school

Future Pathways

Unit 2 Japanese: Second Language (A2JSL)

Unit 2 Japanese: Second Language (A2JSL)

Description

The focus for this unit is **welcome to my country**. Students explore situations and events associated with welcoming visitors to Perth and Western Australia as well as places of interest in other Australian states. Students explore activities with visitors, such as going out with a visitor, eating out and organising outings, sharing a meal at home, daily communication such as leaving notes and messages, and staying fit and healthy. They make comparisons between their lifestyle and Japanese culture by comparing major celebrations such as Christmas, New Year and Easter.

Prescribed Topics:

- Welcoming a guest
- Seasonal activities and celebrations
- Healthy lifestyles

Future Pathways

Units 3 and 4 Japanese: Second Language in Year 12 (ATJSL)

Unit 3 Japanese: Second Language (ATJSL)

Minimum Entry Requirements

'C' grade and a mark of 60% in Units 1 and 2 of Japanese Second Language or the recommendation of the teacher of Japanese Second Language

Description

The focus for this unit is **わかい旅行者** (Young travellers). Authentic travel options are investigated: bookings, accommodation, transport, major sites, travel preparations as well as travel complications and surprises.

Learning topics

Unit 3 is organised around three learning contexts and a set of two topics. The placement of a topic under a particular learning context is intended to provide a specific perspective for the teaching and assessment of the topic.

- Travel
- Part-time jobs and saving money

Unit 4 Japanese: Second Language (ATJSL)

Description

This unit builds on the content covered in Unit 3.

Learning contexts

Unit 4 is organised around three learning contexts and a set of three topics. The placement of a topic under a particular learning context is intended to provide a specific perspective for the teaching and assessment of the topic.

- This year and beyond 今年と将来
- Youth events and pathways 若者の行事と進路
- Future plans 未来

Future Pathways

Completion of ATJSL leads directly into further studies of Japanese languages at University or a State Training Provider with entrance at an intermediate level. Students reflect on significant events of their final school year: school ball, graduation, driving licence and their plans beyond school. They compare these events with plans that young people have in Japan. Finally, students explore career pathways in a technological world, and the place of Japanese in their futures. Speaking a foreign language also lends itself to many future career opportunities especially in the travel, trade and diplomacy fields.

Mathematics

Head of Learning Area: Mrs Colette Miranda

Phone: 9350 5433 / Email: cmiranda@norbert.wa.edu.au

Mathematics Applications

Mathematics Application is designed for those students who want to extend their Mathematical skills beyond year 10, but their future studies do not require the knowledge of Calculus. This subject is mostly opted by a student who has wide range of educational opportunities to continue their studies at University or TAFE.

Unit 1 Mathematics Applications (A1 MAA)

Minimum Entry Requirements

'C' grade and a mark of 50% in Year 10 Maths Extension or 'B' grade and a mark of 65% in Year 10 Maths Advanced Mainstream

Description

Unit 1 of the ATAR Mathematics Applications course contains the following three topics:

- Consumer arithmetic
- Algebra and matrices
- Shape and measurement

'Consumer arithmetic' reviews the concepts of rate and percentage change in the context of earning and managing money, and provides a context for the use of spread sheets. *'Algebra and matrices'* continues the Year 7–10 study of algebra and introduces the new topic of matrices. The emphasis of this topic is the symbolic representation and manipulation of information from real-life contexts using algebra and matrices. *'Shape and measurement'* extends the knowledge and skills students developed in the Year 7–10 curriculum with the concept of similarity and associated calculations involving simple and compound geometric shapes. The emphasis in this topic is on applying these skills in a range of practical contexts, including those involving three-dimensional shapes.

Future Pathways

Unit 2 Mathematics Applications (A2MAA)

Unit 2 Mathematics Applications (A2MAA)

Description

Unit 2 of the ATAR Mathematics Applications course contains the following three topics:

- Univariate data analysis and the statistical investigation process
- Applications of trigonometry
- Linear equations and their graphs.

'Univariate data analysis and the statistical investigation process' develop students' ability to organise and summarise univariate data in the context of conducting a statistical investigation. *'Applications of trigonometry'* extends students' knowledge of trigonometry to solve practical problems involving non right-angled triangles in both two and three dimensions, including problems involving the use of angles of elevation and depression and bearings in navigation. *'Linear equations and their graphs'* uses linear equations and straight line graphs, as well as piecewise and step graphs, to model and analyse practical situations.

Future Pathways

Students may continue with Units 3 and 4 Mathematics Applications in Year 12 (ATMAA)

Unit 3 Mathematics Applications (ATMAA)

Minimum Entry Requirements

'C' Grade and an average mark of 55% in Units 1 and 2 of Mathematics Applications

Description

Unit 3 of the ATAR Mathematics Applications course contains the following three topics:

- Bivariate data analysis
- Growth and decay in sequences
- Graphs and networks

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

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

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

Unit 4 Mathematics Applications (ATMAA)

Description

Unit 4 of the ATAR Mathematics Applications course contains the following three topics:

- Time Series analysis
- Loans, investments and annuities
- Networks and decision mathematics

'Time series analysis' continues students' study of statistics by introducing them to the concepts and techniques of time series analysis. The content is to be taught within the framework of the statistical investigation process. *'Loans, investments and annuities'* aims to provide students with sufficient knowledge of financial mathematics to solve practical problems associated with taking out or refinancing a mortgage and making investments. *'Networks and decision mathematics'* uses networks to model and aid decision making in practical situations.

Future Pathways

This pathway is suitable for students who plan to go to university but for whom further Mathematics is not essential.

Mathematics Methods

This course aims to develop students in the field of Mathematical and statistical reasoning. Students will be able to solve applied problems using concepts from Algebra, Functions, Calculus and Statistics. Mathematics Methods attracts a 10% bonus on the scaled score used in the ATAR calculation.

Unit 1 Mathematics Methods (A1MAM)

Minimum Entry Requirements

'C' grade and a mark of 60% in Year 10 Maths Extension

Description

Unit 1 of the ATAR Mathematics Methods course contains the following three topics:

- Functions and graphs
- Trigonometric functions
- Counting and probability.

Unit 1 begins with a review of the basic algebraic concepts and techniques required for a successful introduction to the study of functions and calculus. Simple relationships between variable quantities are reviewed, and these are used to introduce the key concepts of a function and its graph. The study of probability and statistics begins in this unit with a review of the fundamentals of probability, and the introduction of the concepts of conditional probability and independence. The study of the trigonometric functions begins with a consideration of the unit circle using degrees and the trigonometry of triangles and its application. Radian measure is introduced, and the graphs of the trigonometric functions are examined and their applications in a wide range of settings are explored.

Future Pathways

This unit will be studied sequentially with Unit 2 Mathematics Methods (A2MAM)

Unit 2 Mathematics Methods (A2MAM)

Description

Unit 2 of the ATAR Mathematics Methods course contains the following three topics:

- Exponential functions
- Arithmetic and geometric sequences and series
- Introduction to differential calculus.

In Unit 2, exponential functions are introduced and their properties and graphs examined. Arithmetic and geometric sequences and their applications are introduced and their recursive definitions applied. Rates and average rates of change are introduced and this is followed by the key concept of the derivative as an 'instantaneous rate of change'. These concepts are reinforced numerically (by calculating difference quotients), geometrically (as slopes of chords and tangents), and algebraically. This first calculus topic concludes with derivatives of polynomial functions, using simple applications of the derivative to sketch curves, calculate slopes and equations of tangents, determine instantaneous velocities, and solve optimisation problems.

Future Pathways

Students may continue with Units 3 and 4 Mathematics Methods in Year 12 (ATMAM)

Unit 3 Mathematics Methods (ATMAM)

Minimum Entry Requirements

'C' Grade and an average mark of 55% in Units 1 and 2 of Mathematics Methods

Description

Unit 3 of the ATAR Mathematics Methods course contains the following three topics:

- Further differentiation and applications
- Integrals
- Discrete random variables

The study of calculus continues by introducing the derivatives of exponential and trigonometric functions and their applications, as well as some basic differentiation techniques and the concept of a second derivative, its meaning and applications. The aim is to demonstrate to students the beauty and power of calculus and the breadth of its applications. The unit includes integration, both as a process that reverses differentiation and as a way of calculating areas. The fundamental theorem of calculus as a link between differentiation and integration is emphasised. Discrete random variables are introduced, together with their uses in modelling random processes involving chance and variation. The purpose here is to develop a framework for statistical inference.

Unit 4 Mathematics Methods (ATMAM)

Description

Unit 4 of the ATAR Mathematics Methods course contains the following three topics:

- The logarithmic function
- Continuous random variables and the normal distribution
- Interval estimates for proportions

The logarithmic function and its derivative are studied. Continuous random variables are introduced and their applications examined. Probabilities associated with continuous distributions are calculated using definite integrals. In this unit, students are introduced to one of the most important parts of statistics, namely, statistical inference, where the goal is to estimate an unknown parameter associated with a population using a sample of that population. In this unit, inference is restricted to estimating proportions in two-outcome populations. Students will already be familiar with many examples of these types of populations.

Future Pathways

This pathway is recommended for students who plan to study at university where further Mathematics is required. Examples would include degrees in Science, Mathematics, Statistics or Engineering.

Mathematics Specialist

Mathematics Specialist is an ATAR course which offers the opportunity for students to deepen their Mathematical knowledge, skills and understanding by studying calculus, functions, problem solving, mathematical argument and proofs. In this subject students experiences a progression of content, application and level of complexity.

Mathematics Specialist attracts a 10% bonus on the scaled score used in the ATAR calculation.

Unit 1 Mathematics Specialist (A1 MAS)

Minimum Entry Requirements

'B' Grade and a mark of 70% in Year 10 Maths Extension

This unit **must** be studied in conjunction with Mathematics Methods

Description

Unit 1 of the ATAR Mathematics Specialist course contains the following three topics:

- Combinatorics
- Vectors in the plane
- Geometry

All three complement the content of the ATAR Mathematical Methods course. The proficiency strand, Reasoning, of the Year 7–10 curriculum is continued explicitly in Geometry through a discussion of developing mathematical arguments. While these ideas are illustrated through deductive Euclidean geometry in this topic, they recur throughout all topics in the Mathematics Specialist ATAR course. Geometry also provides the opportunity to summarise and extend students' studies in Euclidean Geometry. An understanding of this topic is of great benefit in the study of later topics in the course, including vectors and complex numbers. Vectors in the plane provides new perspectives for working with two-dimensional space and serves as an introduction to techniques that will be extended to three-dimensional space in Unit 3. Combinatorics provides techniques that are useful in many areas of mathematics, including probability and algebra. All topics develop students' ability to construct mathematical arguments. The three topics considerably broaden students' mathematical experience and therefore begin an awakening to the breadth and utility of the course. They also enable students to increase their mathematical flexibility and versatility. Access to technology to support the computational aspects of these topics is assumed.

Future Pathways

This unit will be studied sequentially with Unit 2 Mathematics Specialist (A2MAS)

Unit 2 Mathematics Specialist (A2MAS)

Minimum Entry Requirements

This unit **must** be studied in conjunction with Units 1 and 2 Mathematics Methods

Description

Unit 2 of the ATAR Mathematics Specialist course contains the following three topics:

- Trigonometry
- Matrices
- Real and complex numbers

In Unit 2, Matrices provide new perspectives for working with two dimensional space and Real and complex numbers provides a continuation of the study of numbers. The topic Trigonometry contains techniques that are used in other topics in both this unit and Units 3 and 4. All topics develop students' ability to construct mathematical arguments. The technique of proof by the principle of mathematical induction is introduced in this unit.

Future Pathways

Students may continue with Units 3 and 4 Mathematics Specialist in Year 12 (ATMAS)

Unit 3 Mathematics Specialist (ATMAS)

Minimum Entry Requirements

'C' Grade and an average mark of 55% in Units 1 and 2 of Mathematics Specialist

This unit **must** be studied in conjunction with Units 3 and 4 Mathematics Methods

Description

Unit 3 of the ATAR Mathematics Specialist course contains the following three topics:

- Complex numbers
- Functions and sketching graphs
- Vectors in three dimensions

The study of vectors was introduced in Unit 1 with a focus on vectors in two-dimensional space. In this unit, three-dimensional vectors are studied and vector equations and vector calculus are introduced, with the latter extending students' knowledge of calculus from the ATAR Mathematics Methods course. Cartesian and vector equations, together with equations of planes, enables students to solve geometric problems and to solve problems involving motion in three-dimensional space. The Cartesian form of complex numbers was introduced in Unit 2, and the study of complex numbers is now extended to the polar form.

The study of functions and techniques of graph sketching, begun in the ATAR Mathematics Methods course, is extended and applied in sketching graphs and solving problems involving integration.

Access to technology to support the computational aspects of these topics is assumed.

Unit 4 Mathematics Specialist (ATMAS)

Description

Unit 4 of the ATAR Mathematics Specialist course contains the following three topics:

- Integration and applications of integration
- Rates of change and differential equations
- Statistical inference

In Unit 4, the study of differentiation and integration of functions continues, and the calculus techniques developed in this and previous topics are applied to simple differential equations, in particular in biology and kinematics. These topics demonstrate the real-world applications of the mathematics learned throughout the ATAR Mathematics Specialist course.

In this unit, all of the students' previous experience working with probability and statistics is drawn together in the study of statistical inference for the distribution of sample means and confidence intervals for sample means.

Access to technology to support the computational aspects of these topics is assumed.

Future Pathways

This pathway is recommended for students who plan to study at university where Mathematics is a significant component of the course. Examples would include degrees in Medicine, Pure Mathematics, Engineering or Actuarial studies.

Science

Head of Learning Area: Mr Roger D'Almeida

Phone: 9350 5433 / Email: rdalmeida@norbert.wa.edu.au

Chemistry

Chemistry is often called the ‘central science’ as it is the intersection in scientific knowledge of physics, biology, geology, engineering, astronomy, and psychology. It is the science studied at the molecular level, including the synthesis and analysis of molecules and materials, and their properties. Modern day chemistry is the core of leading research in medicine, IT, nanomaterials, and environmental sciences; making chemistry increasingly applicable in our daily lives.

Chemistry by its very nature is hands on and has a large focus on applying theoretical knowledge by building practical laboratory skills. Studying chemistry teaches applied problem-solving, teamwork and critical analysis skills that are in high demand by employers across all sectors including health services, engineering and research.

Unit 1 Chemistry (A1CHE)

Minimum Entry Requirements

‘B’ Grade and mark of 65% in Year 10 Science Extension or ‘A’ Grade and mark of 75% in Year 10 Science Mainstream

Description

Chemical fundamentals: structure, properties and reactions – In this unit, students use models of atomic structure and bonding to explain the macroscopic properties of materials. Students develop their understanding of the energy changes associated with chemical reactions and the use of chemical equations to calculate the masses of substances involved in chemical reactions.

Future Pathways

Unit 2 Chemistry (A2CHE)

Unit 2 Chemistry (A2CHE)

Description

Molecular interactions and reactions – In this unit, students continue to develop their understanding of bonding models and the relationship between structure, properties and reactions, including consideration of the factors that affect the rate of chemical reactions. Students investigate the unique properties of water and the properties of acids and bases, and use chemical equations to calculate the concentrations and volumes of solutions involved in chemical reactions.

Future Pathways

Units 3 and 4 Chemistry in Year 12 (ATCHE)

Unit 3 Chemistry (ATCHE)

Minimum Entry Requirements

'C' grade and a mark of 55% in Units 1 and 2 of Chemistry

Description

Equilibrium, acids and bases, and redox reactions – In this unit, students investigate the concept of reversibility of reactions and the dynamic nature of equilibrium in chemical systems; contemporary models of acid-base behaviour that explain their properties and uses; and the principles of oxidation and reduction reactions, including the generation of electricity from electrochemical cells.

Unit 4 Chemistry (ATCHE)

Description

Organic chemistry and chemical synthesis - In this unit, students develop their understanding of the relationship between the structure, properties and chemical reactions of different organic functional groups. Students also investigate the process of chemical synthesis to form useful substances and products and the need to consider a range of factors in the design of these processes.

Future Pathways

Examples of career pathways for chemistry include agricultural scientist, biochemist, chemical engineer, chemist, pharmacist, environmental scientist, forensic scientist, geochemist, toxicologist and veterinary scientist.

Human Biology

Discover how your body works, why it works that way, the origin of human variation and how we are related to one another. You will gain an understanding of human physiology from microscopic cell and tissue processes to biosocial interactions.

Practical tasks are an integral part of this subject and help develop your research and laboratory skills. You will also work towards making informed decisions about lifestyle and health topics such as diet, current medical technologies and use of chemical substances.

Your strong understanding of human structure and function is valued in a diverse range of fields from health care to research.

Unit 1 Human Biology (A1HBY)

Minimum Entry Requirements

'C' Grade and mark of 60% in Year 10 Science Extension or 'B' Grade and mark of 70% in Year 10 Science Mainstream

Description

The functioning human body - In this unit, students analyse how the structure and function of body systems, and the interrelationships between systems, support metabolism and body functioning.

Future Pathways

Unit 2 Human Biology (A2HBY)

Unit 2 Human Biology (A2HBY)

Description

Reproduction and inheritance- In this unit, students study the reproductive systems of males and females, the mechanisms of transmission of genetic material from generation to generation, and the effects of the environment on gene expression.

Future Pathways

Units 3 and 4 Human Biology in Year 12 (ATHBY)

Unit 3 Human Biology (ATHBY)

Minimum Entry Requirements

'C' Grade and a mark of 55% in Units 1 and 2 of Human Biology.

Description

Homeostasis and disease - This unit explores the nervous and endocrine systems and the mechanisms that help maintain the systems of the body to function within normal range, and the body's immune responses to invading pathogens.

Unit 4 Human Biology (ATHBY)

Description

Human variation and evolution - This unit explores the variations in humans, their changing environment and evolutionary trends in hominids.

Future Pathways

Examples of career pathways include; nursing, physiotherapist, chiropractor, speech pathologist, paramedic, medical research and sport scientist.

Physics

Physics explores the world around us to the limits of currently known scales, from matter at its most fundamental level, to the origin and future of the Universe. Students have opportunities to develop their investigative skills and use analytical thinking to explain and predict physical phenomena during investigations.

The knowledge gained through the study of Physics has provided the basis of many technologies around us including lasers, radars, and electron microscopes.

As a Physics graduate, your strong problem-solving and critical thinking abilities will be in demand in fields such as engineering, medicine and research.

Unit 1 Physics (A1 PHY)

Minimum Entry Requirements

'B' Grade and mark of 65% in Year 10 Science Extension or 'A' Grade and mark of 80% in Year 10 Science Mainstream
and

Students studying Physics are also required to study Mathematics Methods which has a MER of 60% C in Year 10 Maths Extension

Description

Thermal, nuclear and electrical physics- Students investigate energy production by considering heating processes, radioactivity and nuclear reactions, and investigate energy transfer and transformation in electrical circuits.

Future Pathways

Unit 2 Physics (A2PHY)

Unit 2 Physics (A2PHY)

Description

Linear motion and waves- Students describe, explain and predict linear motion, and investigate the application of wave models to sound phenomena.

Future Pathways

Units 3 and 4 Physics in Year 12 (ATPHY)

Unit 3 Physics (ATPHY)

Minimum Entry Requirements

'C' grade and a mark 55% in Units 1 and 2 of Physics

Students studying Physics are also required to study Mathematics Methods

Description

Gravity and electromagnetism- Students investigate models of motion in gravitational, electric and magnetic fields to explain how forces act at a distance.

Unit 4 Physics (ATPHY)

Description

Revolutions in modern physics- Students use the theory of electromagnetism to explain the production and propagation of electromagnetic waves and investigate how shortcomings in existing theories led to the development of the quantum theory of light and matter, the Special Theory of Relativity, and the Standard Model of particle physics.

Future Pathways

Examples of career pathways include; meteorologist, astronomer, mechanical engineer, electrical engineer, research scientist in government or industry and geophysicist.

Psychology

Unit 1 Psychology (A1PSY)

Psychology is the study of human thoughts and behaviours, the processes underlying these, and their relationship to brain function. You will learn about major psychological models and theories as well as the methods used to conduct scientific investigations.

Students apply research methods and ethical principles to examine phenomena such as memory, attention, attitudes, personality and group behaviour. The critical thinking skills gained by Psychology students can be applied further in study, everyday life as well as a wide range of employment including business, education, health, sport and more.

Minimum Entry Requirements

'C' Grade and mark of 60% in Year 10 Science Extension or 'B' Grade and mark of 65% in Year 10 Science Mainstream

Description

This unit focuses on a number of concepts that enable students to gain an understanding of how and why people behave the way they do. Students learn about the human brain and explore the impact of external factors on behaviour, such as physical activity and psychoactive drugs. Cognitive processes, such as sensation and perception, and selective and divided attention are investigated. Students examine different types of relationships and the role of verbal and non-verbal communication in initiating, maintaining and regulating these. Students are introduced to ethics in psychological research and carry out investigations.

Future Pathways

Unit 2 Psychology (A2PSY)

Unit 2 Psychology (A2PSY)

Description

This unit focuses on developmental psychology. Students analyse twin and adoption studies to gain insight into the nature/nurture debate and look at the role of play in assisting development. Students explore what is meant by the term personality and examine historical perspectives used to explain personality. They also explore behaviour and causes of prejudice. Psychological research methods studied in Unit 1 are further developed.

Future Pathways

Units 3 and 4 Psychology in Year 12 (ATPSY)

Unit 3 Psychology (ATPSY)

Minimum Entry Requirements

'C' grade and a mark of 55% in Units 1 and 2 of Psychology

Description

This unit focuses on the functions of the lobes of the cerebral cortex and examines how messages are transmitted from the brain to the body. It explores how behaviour is influenced by learning and other factors, and the impact of others on individual behaviour. Students examine socialisation processes observed within families and how social background and gender can shape communication styles. Students expand on their knowledge of ethics in psychological research as they engage in detailed investigations.

Unit 4 Psychology (ATPSY)

Description

This unit focuses on developmental and contemporary personality theories, and behaviours observed when individuals are examined in the social context. Students analyse the causes of conformity and obedience and gain an understanding of the factors that shape a sense of community. Students continue to develop their understanding and application of psychological research methods.

Future Pathways

Examples of career pathways include; forensic psychologist, clinical psychologist, educational psychologist, sports psychologist, human resources, social worker and counselor.

Technologies

Head of Learning Area: Mrs Samantha Mark

Phone: 9350 5433 / Email: smark@norbert.wa.edu.au

Computer Science

Mr Greg Hulshoff

Phone: 9350 5433 / Email: gkulshoff@norbert.wa.edu.au

In the ATAR Computer Science course students explore the fundamental principles, concepts and skills within the field of computing. They learn how to diagnose and solve problems in the course of understanding the building blocks of computing. Students explore the principles related to the analysis and creation of computer and information systems; software development; the connectivity between computers; the management of data; the development of database systems; and the moral and ethical considerations for the development and use of computer systems. This course provides students with the practical and technical skills that equip them to function effectively in a world where these attributes are vital for employability and daily life in a technological society.

Unit 1 Computer Science (A1 CSC)

Minimum Entry Requirements

'C' grade and a mark of 65% in English Mainstream

and

'C' grade and a mark of 50% in most recent Year 9 or 10 Computer Science or Multimedia course.

Description

The focus for this unit is developing computer-based systems and producing spreadsheet and database solutions. Students are introduced to the internal, interrelating components of computer-based systems in an industry context. They examine a variety of systems, build on their spreadsheet and database skills and gain an appreciation of how these concepts and technologies are used in industry.

Future Pathways

Unit 2 Computer Science (A2CSC)

Unit 2 Computer Science (A2CSC)

Description

The focus for this unit is developing computer-based systems solutions and communications. Students are introduced to networking concepts, as applied to industry. Through the use of algorithms, students develop programming skills. They create solutions exploring the ethical, legal and societal implications of industry-based applications.

Future Pathway

Unit 3 and 4 Computer Science in Year 12 (ATCSC)

Unit 3 Computer Science (ATCSC)

Minimum Entry Requirements

'C' grade and a mark of 55% in Units 1 and 2 of Computer Science, or approval from the Head of Learning Area.

Description

Students learn about the design concepts and tools used to develop relational database systems. They consider the complex interactions between users, developers, the law, ethics and society when computer systems are used and developed.

Unit 4 Computer Science (ATCSC)

Description

Students gain the knowledge and skills to create software. They use algorithms and structured programming to design and implement software solutions for a range of problems using the software development cycle (SDC). Students examine attitudes and values that lead to the creation and use of computer-based systems and their effect on society. They consider networks, communication systems, including security and protocols.

Future Pathway

Various courses at Universities and Service Training Providers that include; Bachelor of Science Majoring in: Computer Science, Software Engineering, Computer Security or Computer Programming; Applications Developer, Game Developer, Software Engineer, Software Designer, Systems Analyst and Computer Support Officer.

The Arts

Head of Learning Area: Mr Chadwick Beins

Phone: 9350 5433 / Email: cbeins@norbert.wa.edu.au

Dance

Ms Laura Alban

Phone: 9350 5433 / Email: lalban@norbert.wa.edu.au

The Dance ATAR course aims to develop and present ideas through a variety of genres, styles and forms, allowing students to gain a thorough understanding of the technical, design and expressive skills required in Dance. The course provides a unique way in which to express our cultural view and understanding of the world. Through critical decision making in individual and group work, movement is manipulated and refined to reflect the choreographer's intent. Students use a wide range of creative processes, such as improvisation and the use of choreographic elements and devices, and draw on their own physicality and the interpretation of existing work of others to create dance works.

Through participation in the Dance ATAR course, students develop transferable skills essential to their future. These include communication skills, collaborative teamwork skills, negotiation and conflict resolution skills, problem-solving skills, as well as the ability to organise, analyse and evaluate. Students gain experience in the audition process and develop personal confidence that equip them to potentially teach or perform in community or professional dance schools. Participation may lead to opportunities for future study (university, TAFE or certificate) in dance or related arts fields.

Unit 1 Dance (A1DAN)

Minimum Entry Requirements

'C' grade and a mark of 65% in English Mainstream
and

'C' grade and a mark of 60% in Year 10 Dance or membership of the Senior Dance Team

Description

This unit focuses on the exploration of dance in popular culture and how this leads to a wider understanding of the diverse contexts and functions of dance in society.

Within the broad focus of popular culture, teachers select learning contexts that relate to the interests of their students and build upon the understandings that they have already acquired. The exploration of dance in popular culture leads to a wider understanding of the diverse contexts and functions of dance in our society. Students understand and value the way dance is subject to different interpretations, and appreciate that informed responses should take into account the varying contexts within which dance works are created.

Future Pathway

Unit 2 Dance ATAR (A2DAN)

Unit 2 Dance (A2DAN)

Description

This unit focuses on the diverse range of functions and contexts of dance in Australia. Students analyse critically their own cultural beliefs and values in relation to traditional and contemporary dance forms and styles, and develop an understanding of their own dance heritage.

Within the broad focus of Australian dance, teachers select learning contexts that relate to the interests of their students and build upon the understandings that they have already acquired. An understanding of the diverse range of functions and contexts of dance in Australia allows students to make relevant comparisons between their own dance and the dance of others. They analyse critically their own cultural beliefs and values in relation to traditional and contemporary dance forms and styles, and develop deeper understandings of their own personal dance heritage. They understand that dance may give form to ideas and issues that concern the wider community.

Future Pathway

Units 3 and 4 Dance ATAR (ATDAN)

Design

Mr Craig Mecham

Phone: 9350 5433 / Email: cmecham@norbert.wa.edu.au

Design involves the strategic development, planning and production of visual and tactile communication. It deals with the effective and efficient communication of ideas, values, beliefs, attitudes, messages and information to specific audiences for specific purposes and with specific intentions. The goals of the ATAR Design course are to facilitate a deeper understanding of how design works; and how ideas, beliefs, values, attitudes, messages and information are effectively communicated to specific audiences with specific intentions or purposes via visual media forms. This course aims to achieve these goals by exposing students to a variety of communication forms and a thorough exploration of design. Design projects allow students to demonstrate their skills and understandings of design principles and processes; to analyse problems and possibilities; and to devise innovative strategies within design contexts. There is potential for students to develop transferable skills and vocational competencies while devising innovative designs. In this course, students develop a competitive edge for current and future industry and employment markets. This course also emphasises the scope of design in professional and trade-based industries allowing students to maximise vocational and/or university pathways.

Unit 1 Design (A1 DES)

Minimum Entry requirements

'C' grade and a mark of 65% in English Mainstream
and

'C' grade and a mark of 60% in any Year 10 Technologies and/or Arts Subject.

Description

Students learn that the commercial world is comprised of companies requiring consumer products, services and brands for a particular audience. They are introduced to the concept of intellectual property. They create products/services, visuals and/or layouts with an understanding of codes and conventions. They use relevant and appropriate production skills and processes, materials and technologies relevant to the design. Students may choose to study in the contexts of Photography, Graphics or Dimensional Design.

Future Pathways

Unit 2 Design ATAR (A2DES)

Unit 2 Design (A2DES)

Description

Students learn that society is made up of different groups of people who share diverse values, attitudes, beliefs, behaviour and needs and that different forms of visual communication transmit these values and beliefs. Students are encouraged to create designs that link to a culture or subculture and are introduced to ethical issues concerning representation. Students develop a design process with an understanding of codes and conventions. They analyse communication situations and audience. They define and establish contemporary production skills and processes, materials and technologies. Students may choose to study in the contexts of Photography, Graphics or Dimensional Design.

Future Pathway

Units 3 and 4 Design ATAR in Year 12 (ATDES)

Unit 3 Design (ATDES)

Minimum Entry Requirements

'C' grade and a mark of 55% in Units 1 and 2 of Design or approval from Head of Learning Area

Description

Students become aware that design has commercial considerations that are influenced by various stakeholders to produce products, services and brands. Commercial design is client and market driven and is a reflection of contemporary consumer demands. Students are introduced to a client-focused design brief to create a product or service. They plan, develop and analyse to create designs that reflect the client, audience, and market needs. They also consider commercial and manufacturing requirements for a real world solution, with relevant production skills and processes, materials, and technologies.

Unit 4 Design (ATDES)

Description

The focus of this unit is the communication of ideals, messages, information and values, to influence opinion and attitudes. Students produce products and visual layouts for specific and applied contexts with an understanding of applied semiotics and the construction of meaning. They analyse the audience in terms of empathy, profiling and stereotyping, and develop persuasive solutions using a research, testing and feedback mechanism.

Future Pathways

Students who study Design will be aiming for the Design field after graduating. Examples of careers include Architecture, Web-Designer, Graphic Designer or Animator, Photographer, Journalist and Forensics.

Visual Arts

Ms Amanda Marsh

Phone: 9350 5433 / Email: amarsh@norbert.wa.edu.au

Visual Arts is a valuable choice for a student who is interested in pursuing a career in Creative Industries, a creative role within a business environment and can be instrumental in developing “soft skills” that are so vital in the 21st Century. It is particularly relevant for those seeking higher education in Visual Arts both at a Tertiary or TAFE institution. In addition to this, the practical elements of this course best suit those who enjoy producing artworks, designs or decorating, and are interested in public art, freelance art and design, while the theoretical elements will suit those with an interest in curating public or private collections or running an Arts Residency. This qualification reflects the role of individuals who apply a range of competencies in a varied work context in the Visual Arts Industry, using discretion and judgment and theoretical knowledge.

Unit 1 Visual Arts (A1VAR)

Minimum Entry requirements

'C' grade and a mark of 65% in English Mainstream
and

'C' grade and a mark of 60% in any Year 10 Technologies and/or Arts Subject.

Description

The focus for this unit is “*differences*”. Students may, for example, consider differences arising from cultural diversity, place, gender, class and historical period. Differences relating to art forms, media and conventions may also provide a stimulus for exploration and expression.

As the course progresses, students have some autonomy. The teacher acts more as a facilitator in directing students’ approach to Visual Arts making and discussion. Students are given a framework to begin and then advised on best use of media and/or research in order to adequately express ideas that are important to them. For example - a student might choose to present their work as a series of prints or a sculpture.

Future Pathways

Unit 2 Visual Arts ATAR (A2VAR)

Unit 2 Visual Arts (A2VAR)

Description

The focus for this unit is “*identities*”. In working with this focus, students explore concepts or issues related to personal, social, cultural or gender identity. They become aware that self-expression distinguishes individuals as well as cultures. Students use a variety of stimulus materials and use a range of investigative approaches as starting points to create artwork. They develop a personal approach to the development of ideas and concepts, making informed choices about the materials, skills, techniques and processes used to resolve and present their artwork.

Response to artwork stimulates insights, encourages deeper understandings, and challenges preconceived ideas. Students develop an awareness of how the visual arts may be both socially confirming and questioning, analyse their own cultural beliefs and values and develop deeper understandings of their own personal visual arts heritage.

Students have more autonomy in Unit 2. The teacher acts as a facilitator in directing students’ creative research and making. Students are given a framework to begin and then advised on best use of media and/or research in order to adequately express ideas that are important to them. This may involve producing a body of work that encompasses many media from drawing through to 4D digital animations.

Future Pathway

Units 3 and 4 Visual Arts ATAR (ATVAR)

Unit 3 Visual Arts (ATVAR)

Minimum Entry requirements

‘C’ grade and a mark of 55% in Units 1 and 2 of Visual Arts ATAR, or approval from Head of Learning Area

Description

The focus for this unit is “*commentaries*”. In this unit, students engage with the social and cultural purposes of art making to produce a unique and cohesive body of work. Broad and innovative inquiry includes the conceptualisation and documentation of experiences within contemporary society. Students transform ideas and develop concepts using innovative approaches to art making and presentation. They document their thinking and working practices, having the flexibility to work across media and art forms.

Students research artwork providing critical comment on the meaning, purpose and values communicated. They examine their own beliefs and consider how the visual arts have reflected and shaped society in different times and places. Consideration is given to the roles of artists in different societies, for example, hero, outsider, commentator and social critic. Students investigate the social functions of art, for example political and ideological expression, satire, social description or graphic communication. They address the relationship between form, function and meaning and develop understandings of how artists are influenced by pervasive ideas, events and circumstances, and how re-contextualisation contributes to meanings and messages in artwork.

Practical work is extremely student driven, where they focus on issues that are important to them, communicating visually their comment on that topic. Artworks may be 2D, 3D or 4D or combination thereof. The teacher acts as a facilitator in honing those ideas and skills.

Unit 4 Visual Arts (ATVAR)

Description

The focus for this unit is "*points of view*". Students identify and explore concepts or issues of personal significance in the presentation of a sustained, articulate and authentic body of work. They engage in sustained inquiry, exploring ideas and developing concepts to communicate a personal point of view.

Students investigate a range of solutions using visual language and document the progressive resolution of thinking and working practices. Skills, techniques and processes are combined in the pursuit of new art forms, innovation and personal style.

Students are encouraged to build on Unit 3 ideas, taking a Post Modern approach, exploring how others may view their creative output differently to their initial intention. Through this, they can then decide whether to change the way they produce the work or emphasise a very specific point of view. The teacher is a facilitator, encouraging critical thinking and pushing the boundaries of what art is and looks like. Students may use any materials/media including traditional 2D, 3D media or 4D including performance work and digital media.

Future Pathways

A course such as this could also lead to further studies at University or TAFE in the areas of Visual Arts, Fine Arts, Graphic Design, Media, Fashion or Advertising