



Motivate to Achieve

Year 11 Course Selection Handbook 2012

This handbook contains information about all courses on offer for Year 11 in 2012. It should be seen as a resource offered by the College to assist you and your child to make appropriate planning decisions to facilitate future career aspirations.



INTRODUCTION

This Curriculum Information handbook contains information about all courses on offer for Year 11 in 2012. It should be seen as a resource to assist you and your child to make appropriate planning decisions to facilitate future career aspirations.

With the inability to repeat Courses in 2012, it is very important that your child's curriculum choices match their abilities and facilitate their future expectations. Careful consideration needs to be given by each student, and their family, of their potential to achieve the Western Australian Certificate of Education (WACE) and to meet the requirements for further study or entry into the workforce. Our non-permanent resident students need to consider if the Western Australian Universities' Preparatory Program (WAUPP) will suit their post-secondary goals. Consideration of WAUPP needs to be made in Year 11 to ensure that the courses selected in Year 11 can continue into Year 12 WAUPP.

It is vital that students have an academic goal. As a means of supporting the achievement of that goal, students will continue to be required to demonstrate and maintain their 'Academic Good Standing'.

Throughout Year 11 and into Year 12, 'Academic Good Standing' will be achieved when a student demonstrates:

- Completion of all required tasks and assessment items. (Completion of Work)
- Appropriate progress towards achievement of Secondary Graduation. (C grade or better)
- Co-operative behaviour in the learning environment. (Behaviour)

The achievement of 'Academic Good Standing' conveys a clear and positive message to both students and parents about a student's ongoing academic progress. Reviews from the first semester reports have been conducted.

WACE students who complete three or more Stage 2 or 3 units in their final year will still be required to sit the WACE examinations and from this will receive an Australian Tertiary Admittance Rank (ATAR) to gain entrance to university. WAUPP students will receive a Combined Percentage Score (CPS) to gain university entrance.

While course choices and outlines make up the bulk of the material in this booklet, information relating to the WACE, WAUPP, University and TAFE requirements, is also provided to assist your decision-making process.

Mrs Helen Hawley
Director of Teaching and Learning



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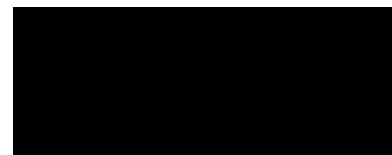
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SECTION 1 - GENERAL

KEY DATES

TERM DATE	EVENT
Week 8, Term 3	<ul style="list-style-type: none"> Curriculum Information Handbooks available on MC-Online Course selection process explained to students
Week 8, Term 3 Week 2, Term 4	Directors and Learning Area Coordinators available to meet with students & parents (optional)
Tuesday 1 st November	Course Selection form due to Student Reception
Term 4	<ul style="list-style-type: none"> Timetable generated Course re-selection organised if courses are unable to be run
Term 4	Students informed of courses for 2012

ASSISTANCE WITH COURSE SELECTION

Where do we get help?

This handbook attempts to provide information that will assist in answering many of your questions. Contact with subject staff is an important part of the process.

For Course Specific Queries:

Please contact the relevant teacher for the course.

Subject	Teacher	Email
Mathematics	Ms Jane Clough	cloughj@murdochcollege.wa.edu.au
Humanities	Ms Kate Dunbar-Smith	dunbarsmithk@murdochcollege.wa.edu.au
Science	Mr Anthony Britza	britzaa@murdochcollege.wa.edu.au
Drama and Media	Ms Lisa Barrett	barrettl@murdochcollege.wa.edu.au
Visual Art	Ms Claire Symmans	symmansc@murdochcollege.wa.edu.au
Accounting & Finance	Mr Carl Vecchio	vecchioc@murdochcollege.wa.edu.au
Applied Information Technology	Mr Chris Morgan	morganc@murdochcollege.wa.edu.au
Physical Education and Outdoor Education	Mr Toby Lewis	lewist@murdochcollege.wa.edu.au
Business Management & Enterprise	Mrs Christine Collins	collinsc@murdochcollege.wa.edu.au
	Mrs Gemma Colgan	colgang@murdochcollege.wa.edu.au
English	Mrs Napur Davis	davisn@murdochcollege.wa.edu.au
	Ms Kathryn Shortland Jones	jonesk@murdochcollege.wa.edu.au
	Mr Carl Owen	owenc@murdochcollege.wa.edu.au
Music	Mr Rory Marchant	marchantr@murdochcollege.wa.edu.au
Japanese	Mrs Danielle de Witt	dewittd@murdochcollege.wa.edu.au

For other course selection queries please contact:

Title	Teacher	Email
Director of Teaching and Learning	Mrs Helen Hawley	hawleyh@murdochcollege.wa.edu.au
Director of Pastoral Care	Mrs Erica Murray	murraye@murdochcollege.wa.edu.au



YEAR 11 COURSE SELECTION PROCESS

- This handbook will be available on MC Online
- Parents and students are strongly advised to read all information in this handbook.
- If necessary, make an appointment with one of the Directors *prior* to the due date of the Course Selection Form.
- Complete the form, following the instructions provided.
- Return the completed selection form to Student Reception no later than **Tuesday 1st November**
- Students will be advised of their 2012 courses during Term 4.

IMPORTANT

1. Students are not to select courses for which they have not met the prerequisites.
2. Results from the Semester 2 and Interim Report will be used as an indicator as to whether the required prerequisite has been met.

EXAMINATION ACCOMMODATIONS

Murdoch College strives to provide the best learning environment for all students to achieve their potential.

Students from Year 7 to Year 10 with documented learning difficulties are granted special exam accommodations. Murdoch College follows the Curriculum Council's special exam arrangement guidelines to assist students in completing WACE examinations. This means that students in Year 11 and 12 who wish to apply for special exam accommodations need to provide the College with updated psychological assessments and specialist reports stating a diagnosis of a learning difficulty and recommendations for specific exam accommodations. These assessments will be used to support students' Year 12 applications for Special Examination Arrangements through the Curriculum Council. Please be aware that without a diagnosis or supporting documentation, students will not receive special exam accommodations. If you have any questions regarding Special Exam Accommodations, contact Mrs Helen Hawley.

HOMEWORK & STUDY

Homework is an integral component of the learning process and is preparatory, supplementary and supportive of work covered in class. Homework is never set for the express purpose of keeping students occupied.

The purpose of homework is to:

- Reinforce knowledge and skills covered in class.
- Complete work commenced in class.
- Undertake work such as reading and note-taking in preparation for future lessons.
- Extend class work through further reading, written and practical work.
- Work on and complete assignments.
- Develop skills to work independently.

Study is time set aside to revise and reinforce concepts and skills already learnt. The purpose of study is to:

- Remember what you have learnt.
- Revise for tests and exams.

Total time allocation for homework and study is a minimum of 3 hours five times per week. Appropriate time allocation for homework is as follows:

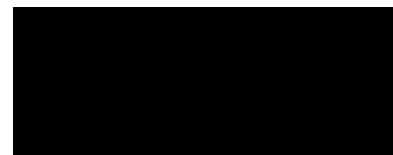
Stage 2 and Stage 3 courses:

- A minimum of ½ hour per course five times per week. Courses with a practical component may require additional time.

Stage 1 course:

- 1-2 hours per course per week. Courses with a practical component may require additional time.

Prior to tests, exams and assignments a substantial amount of time should be set aside on weekends to ensure thorough revision and completion of work on time. The ultimate responsibility rests with students and parents.



SCHOOL LEAVING AGE

Legislation states that students are required to participate in education, training, employment or combinations of these options until the end of the year in which they turn 17. Students who wish to leave school before such time need to have one of the following alternatives in place prior to leaving school.

Alternatives to full time schooling include:

- Full-time TAFE course;
- An apprenticeship or traineeship;
- An approved course with a community based provider;
- A combination program involving part-time school/training and part-time work.

In some cases, Participation Co-ordinators, on behalf of the Minister for Education, will give permission for the student to be a full-time employee. The employment must be in the best long term interest of the student for this pathway to be approved.

If your child is considering leaving school, please contact the College to discuss.

Parents/carers are responsible for completing the necessary paperwork, available from www.det.wa.edu.au/schoolleavingage/detcms/portal.

WESTERN AUSTRALIAN CERTIFICATE OF EDUCATION (WACE)

Secondary Graduation (WACE)

WACE is an essential requirement for students who wish to apply to any of the universities in Perth. It is also recommended for International non-permanent residents who wish to study at an international university. The WACE requirements for 2012 and beyond are different from the 2010 and 2011 requirements. The new WACE requirements were endorsed by the Curriculum Council on 24 March 2010.

2013 WACE Requirements

To achieve a WACE in 2013, a student must:

- 1. BREADTH AND DEPTH REQUIREMENT - Complete a minimum of 20 course units**
 - Four course units must come from English, Literature and/or English as an Additional Language/Dialect (at least two of these units must be completed in Year 12).
 - One pair of units from each of List A (arts/languages/social science) and List B (mathematics/science/technology) completed in Year 12.
- 2. ACHIEVEMENT STANDARD REQUIREMENT - Achieve an average of C grade or better in at least 16 course units.**
 - Of these 16 course units at least eight must be completed in Year 12.
 - The C grade average is calculated using a credit conversion. The total points of 16 courses are averaged. A result of 1.5 and above is equivalent to a C grade or better.

These requirements are on the Curriculum Council website at:

http://www.curriculum.wa.edu.au/internet/Policy/WACE_Requirements/WACE_Requirements_2012

Course Unit	
Grade	Credit
A	2.5
B	2
C	1.5
D	1
E	0.5



3. Meet the requirement for English Language Competence

- Achieve a C grade or better in any Stage 1 or higher course unit from English, Literature and/or English as an Additional Language/Dialect (except 1A and 1B for English as an Additional Language/Dialect).
- For students who have not achieved a C grade in one of their English, Literature and/or English as an Additional Language/Dialect course units, schools will need to compare a selection of the student's work with the work samples to verify the student has demonstrated the required standard.

4. Sit the WACE examination for all Stage 2 and Stage 3 pairs of units in which they are enrolled unless exempt (three or fewer Stage 2 or 3 pairs of units).

STATEMENT OF RESULTS

A *Statement of Results* will be issued to all Year 11 and 12 students who complete at least one Curriculum Council course unit or at least one unit of competency or an endorsed program.

The *Statement of Results* is a cumulative record which is issued at the end of each year of senior secondary school.

The *Statement of Results* will record:

- Grades achieved in Curriculum Council courses (A, B, C, D or E);
- Levels and bands or grades achieved in course units;
- Course units completed;
- Endorsed programs completed;
- Completion of requirements for the awarding of the Western Australian Certificate of Education (WACE);
- Achievement of the English language competence requirement;
- Results achieved in Tertiary Entrance Examination courses and WACE course examinations;
- Achievement of awards;
- Number of complete hours for Community Service.

ENDORSED PROGRAMS

An endorsed program is a significant learning program that has been developed by a school, community organisation or private provider, and endorsed by the Curriculum Council for students in Years 10, 11 and 12. Such programs offer a range of exciting activities not covered by traditional subjects or courses.

Endorsed programs include informal and extra-curricular learning and university studies. Achievement of endorsed programs can contribute up to 50% of the WACE requirements.

The endorsed programs for 2012 may include:

- Music Examinations Board.
- Skipper's Ticket.
- PADI.
- Sport.
- Community Service – Girl Guides.
- Interact.
- School Production.



WESTERN AUSTRALIAN UNIVERSITIES' PREPARATORY PROGRAM (WAUPP)

The Tertiary Institutions Service Centre (TISC) administers the Western Australian Universities' Preparatory Program (WAUPP) on behalf of these universities:

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

The WAUPP is a course of academic study for entry to university. The Program is designed for international students who do not have a strong English language background and whose matriculation level in their home country is not sufficient for entry into Western Australian universities. It is only available to non-permanent residents.

The WAUPP is a parallel program to the Western Australian Certificate of Education (WACE). The policy is that the standards for the WAUPP should be the same as the WACE.

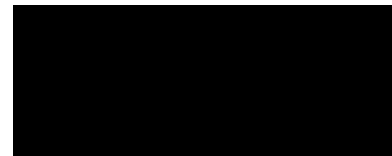
Students study three subjects plus a special course that has been developed called English Language and Australian Cultural Studies (ELACS). Students must achieve a score of at least 50 in ELACS to meet the English language competency requirements of the Western Australian universities. The time allocated to the teaching of ELACS is double that of the other subjects. Essentially this means that the minimum number of subjects being studied is five (counting ELACS as two subjects).

The other subjects offered at Murdoch College are;

- Accounting and Finance (3A/3B).
- Applied Information and Technology (3A/3B).
- Business Management and Enterprise (2A/2B) and (3A/3B).
- Chemistry (3A/3B).
- Economics (3A/3B).
- Human Biological Science (3A/3B).
- Mathematics (2C/2D) and (3A/3B) and (3C/3D).
- Mathematics: Specialist (3C/3D).
- Physics (3A/3B).
- Visual Art (2A/2B).
- Media (2A/2B).

All these subjects follow the WACE syllabuses. All subjects are examined externally. The Tertiary Institutions Services Centre (TISC) organises the administration of the examinations including the setting and marking of the examination papers. Scaled subject scores are calculated using an external examination mark and an internal assessment mark.

WAUPP students will receive a CPS instead of an ATAR. The CPS is calculated by averaging a student's best three subject scores (excluding ELACS). Subject scores are calculated using an external examination mark and an internal assessment mark. The CPS required to gain admission into Western Australian universities in 2010 ranged from 50 to 80 depending on the course and the university.



The following table may be useful when trying to compare a CPS with an Australian Tertiary Admissions Rank (ATAR).

CPS/ATAR APPROXIMATE CONVERSION TABLE *	
CPS	Converts approximately to ATAR of
30	30.00
40	50.00
45	59.00
50	66.00
55	74.00
60	81.00
65	86.00
70	90.00
75	95.00
80	97.00
85	98.00
90	99.00

*This table gives an indication of the Combined Percentage Score (CPS) required to approximate a particular Australian Tertiary Admissions Rank (ATAR). More information regarding the WAUPP is available on the TISC website www.tisc.edu.au.



CAREER INFORMATION

TAFE & University Courses

All TAFE and Universities offer comprehensive counselling and course information.

USEFUL WEBSITES

University

- Curtin www.curtin.edu.au
- Edith Cowan www.ecu.edu.au
- Murdoch www.murdoch.edu.au
- Notre Dame www.nd.edu.au
- University of WA www.uwa.edu.au

TAFE

Links to all TAFE campuses www.tafe.wa.edu.au

Other

- Training WA www.trainingwa.wa.gov.au
- Curriculum Council www.curriculum.wa.edu.au
- TISC www.tisc.edu.au
- Defence Forces www.defencejobs.gov.au
- Apprenticeships www.det.wa.edu.au/apprenticentre/detcms/portal
- Job Search www.jobsearch.gov.au
- MyFuture www.myfuture.edu.au
- Job Guide www.jobguide.dest.gov.au



SECTION 2 - PATHWAY INFORMATION

PATHWAYS 2012

Murdoch College is pleased to introduce a number of pathways for 2012;

- University Entrance – WACE ATAR
- University Entrance – WAUPP
- Graduation Pathway
- MCMU – Murdoch University Pathway

UNIVERSITY ENTRANCE – WACE ATAR

The University Entrance WACE ATAR pathway should be selected by students who wish to enter University directly from the College. Perth has five universities:

- Curtin University (Bentley).
- Edith Cowan University (Joondalup and Mt Lawley).
- Murdoch University (Murdoch and Rockingham).
- Notre Dame *Private* (Fremantle).
- University of Western Australia (Crawley).

UNIVERSITY ADMISSION (to all universities except Notre Dame)

Admission to university is competitive, with most courses having more applicants than places. To process applicants fairly, they are ranked using the ATAR based on their final combined result from the Curriculum Council.

To be considered for university admission as a school leaver applicant, normally you must –

- a) demonstrate **English Competence**, and
- b) obtain a sufficiently high **ATAR** for entry to a particular university and/or course, and
- c) satisfy any **prerequisites** or special requirements for entry to particular courses, and
- d) achieve the **WACE**.

a) English Competence

For entry into Edith Cowan, Curtin, Murdoch and University of WA, students must achieve a scaled mark of 50 in their English course. Each of the above universities offers concessions for students who do not meet the English Competence Requirement. Please go to www.tisc.edu.au for more information

b) Australian Tertiary Admittance Rank (ATAR).

ATAR (previously known as TER) is a ranking which reports your position relative to all people in the Year 12 School leaving age population in Western Australia. For a technical explanation of the Australian Tertiary Admission Rank (ATAR) go to <http://www.tisc.edu.au/static-fixed/statistics/ter-frequency/atar-technical-specification.pdf>

c) Prerequisites

Some university courses will require students to have studied particular courses at school. These are prerequisites and must be studied at a Stage 3 level prior to the end of Year 12, with a scaled mark of at least 50. Some courses will have “desirable” courses – not essential but useful for the student to have studied these at school.

d) WACE

All universities require students to have their WACE as an entry requirement.

Statistically, students get a higher ATAR and perform better at University if they complete five or six courses in year 12 and minimise their Stage 2 courses. The student’s entry into University depends on a number of factors. One of these is the statistical adjustment of marks. This adjustment involves three phases:

- Standardising the raw school & exam mark;
- Statistically moderating the school mark;
- Scaling.



Standardising the raw school & exam mark:

- The raw exam and school mark is standardised because exam papers and school marks for each course vary in difficulty from year to year, and from course to course.
- Standardisation adjusts for these differences in difficulty.

Statistical moderation of the school mark:

- A moderated school mark is calculated from the raw school mark.
- This statistically moderated school mark uses the same numerical scale as the standardised exam marks.
- This, therefore, has the same meaning in each school as all students sat the same examination.

Scaling

- Scaling adjusts for differences in difficulty between courses and aims to ensure that students are not disadvantaged if they choose a more difficult subject.
- TISC uses the average marks scaling (AMS) method.
- A student's scaled school is likely to be different from their school mark and their combined mark.

An example is as follows:

- If the year 12 students in Stage 3 Modern History, as a group, perform better across all of their courses than students in Stage 3 Media, then the combined marks for Modern History will be scaled up relative to the combined marks in Media.

ATAR

- An ATAR ranges between 99.95 and zero, and reports an individual's rank position relative to all other students. It has replaced the Tertiary Entrance Rank (TER).
- It takes into account the number of students who sit the WACE examinations in any year and also the number of people of Year 12 school-leaving age in the total population.
- If you have a TER (ATAR) of 70.00, for example, it indicates that you have achieved as well as or better than 70% of the Year 12 school leaver age population.
- For a technical explanation of how the Tertiary Entrance Aggregate (TEA) and Australian tertiary admission rank (ATAR) is calculated go to www.tisc.edu.au.

To maximise the success of our students we recommend that students select

- 6 WACE subjects or;
- 5 WACE subjects plus a Murdoch University Head Start or Foundation Unit;
- Maximum of two Stage 2 courses.

UNIVERSITY ENTRANCE – WAUPP

For admission to a university in Western Australia students are required to:

- score a minimum of 50 in ELACS **and**;
- achieve an appropriate Combined Percentage Score (CPS).

For some courses students may also have to meet further requirements such as subject prerequisites, interviews, tests and folio requirements.

GRADUATION PATHWAY

The WACE Graduation Pathway is suitable for students wishing to enter employment or enter university via TAFE. Students who select this pathway may complete Stage 1, 2 or 3 courses. It is important to note that students will not receive an ATAR if they complete three or fewer Stage 2 and/or 3 pairs of units. To be competitive an application for TAFEWA should include some Stage 2 unit or if possible a Stage 3 unit.



TAFEWA Background

TAFEWA is made up of 10 colleges with over 50 campuses across Western Australia and is the largest provider of vocational education and training in the State. It is available for local and international students. It is important to note that not all courses are available for International students. TAFEWA works closely with industry to provide and formally recognise skills that today's employers are looking for.

There are over 400 qualifications available through TAFEWA at various levels in virtually all industry and course areas. They have been designed to fit together to provide seamless pathways between all levels of study and careers. Hence, students enter at the most appropriate level and continue until they reach their desired learning or job outcome. TAFEWA also aims to allow students to readily move between TAFEWA and employment, return to study at any time, or enable students to do both at the same time.

TAFEWA courses are flexibly designed and delivered to offer students the best combination of learning and practical experience. Classroom teaching is mixed with hands-on activities, using contemporary equipment and applications to perform actual job tasks, employer and off-campus visits, work placements and various other opportunities and forms of delivery. Many TAFEWA qualifications lead straight into university qualifications.

In some cases, by successfully completing a TAFEWA qualification, students can reduce the time it takes to get a degree. For example, students can start their studies at TAFEWA, complete a Certificate IV or diploma and apply for university entrance. It is important to remember a TAFEWA qualification is not a guarantee that you will gain university admission. You will need to meet the minimum entrance requirements for your chosen field.

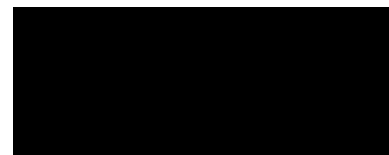
Differences between TAFEWA and University Qualifications:

TAFEWA offers certificate, diploma and advanced diploma qualifications which can vary in length of study from six months to three years. Qualifications are practical and tailored to meet job requirements. Universities offer degree qualifications which take three or more years and usually contain more theory than TAFEWA qualifications.

Course requirements

Entry into some TAFEWA courses is increasingly competitive. Students hoping to study at TAFEWA should consult the TAFEWA website www.tafe.wa.edu.au.

If there are more people applying for a qualification than there are places, you will need to supply additional information to TAFE Admissions Services. That is because such courses are deemed competitive. Competitive courses require applicants to meet the Minimum Entrance Requirements AND the Selection Criteria.



MCMU – Murdoch College Murdoch University Pathway

This is a new linked Murdoch College – Murdoch University entrance pathway.

Dean's Entry Awards - available for excellent students who wish to study in the following areas at Murdoch University;

- Business.
- Chiropractic Studies
- Education
- Engineering
- Law
- Psychology

For courses in Business, Chiropractic Studies, Education, Engineering, Law and Psychology students must demonstrate a high level of achievement in selected subjects. They must also place the chosen area at Murdoch University as 1st preference on their TISC application. If the student meets the selection criteria, Murdoch College will then nominate the student for one of the University's Dean's Awards. If the student is successful they will be guaranteed a place in their chosen preference prior to sitting the external WACE examinations.

Entry Awards

The School can also nominate students for Entry Awards that if accepted by the University, will enable a limited number of potential students to enter most courses (except Veterinary Science, Psychology Honours, Chiropractic and Law). Again students must be demonstrating a good level of achievement and display characteristics that the College considers would make them good University students

Media Portfolio Awards

The final award is the Media Portfolio Award. For a student to be eligible for this award they complete a Media Course. The student must display an aptitude for Media Studies and display English language competency. The student must also apply for and meet selection criteria and produce a Media Portfolio They do not need to achieve an ATAR, only secondary graduation.

Further details will be available for students who select this pathway.



SECTION 3 - SELECTING COURSES

ENTRY INTO YEAR 11 COURSES

It is important that course selection is made on the basis of possible future careers. However, it is essential that choices are realistic, and in keeping with the student's academic ability, and their commitment to school work and independent study. Students who do not qualify for certain courses will not be permitted to study these in Year 11 unless there are extenuating circumstances. Entry into a course requires all of the following:

ACADEMIC ABILITY

Achievement of prerequisites

Achieving the prerequisite for a course is the first of three steps required for gaining entry into a Year 11 course. In order to achieve success in many upper school courses, students need to have demonstrated a high degree of academic ability and achievement in Year 10 courses. Without this background, students invariably have difficulty with the Year 11 course content.

It is essential to take careful note of Year 11 prerequisites. Each prerequisite indicates the minimum level of achievement required for success in a particular course and is determined on the basis of the professional opinion of the Learning Area Coordinator. A student's achievement of a prerequisite is based on the result achieved in his or her Semester 1 Report. Should the student's grade improve in Semester 2 to such an extent that the prerequisite is met; the student may then request to change to that course. A 'Request to Change Course Enrolment' form requesting the change should be immediately directed to the Dean of Studies. Students who change courses or do not meet the prerequisite in Semester 1 cannot be guaranteed their course choice. Students who have met prerequisites in Semester 1, but do not meet prerequisites in Semester 2 may be required to choose other courses in December.

Approval of relevant Teacher

The second step involves the approval from your current teacher. While achievement in Year 10 is a reasonable indicator of ability, some students may not possess the necessary ability and self-discipline required to succeed at a higher level of study. Your classroom teacher is in the best position to review potential class lists for 2011 to determine each student's suitability to undertake the desired courses. If it is the professional opinion of the classroom teacher that you will not be successful in a course, you will be counselled to make an alternative choice.

Approval of Director of Teaching and Learning or Director of Pastoral Care

The third step involves the approval of the Director of Teaching and Learning and the Director of Pastoral Care. In reaching this decision, the Directors will give consideration to a student's general welfare and best interests, past academic performance, level of behaviour and co-operation with teaching staff, likelihood of achieving successful academic results and any other factors worthy of consideration.

INTERESTS

The new Courses provide students the opportunity to pursue their particular interests at whatever level they are able to perform.

FUTURE INTENTIONS

Whether planning to seek an apprenticeship or traineeship, employment or to continue with further studies (TAFE, tertiary or other) students should choose courses which will maximise their options for the future. Students should also be aware that many TAFEWA qualifications can lead on to university entry with advanced standing (ie an ATAR is not the only avenue to university entrance).



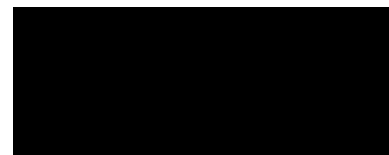
COURSE SELECTION PROCESS

The course selection process involves a number of steps;

1. Read this handbook carefully.
2. Decide which pathway you would like to pursue.
3. Discuss this with your parents
4. Collect the relevant pathway course selection sheet from student reception or from the Director of Teaching and Learning.
5. Check your courses on the selection sheet.
6. Get your classroom teacher to sign the selection sheet. Course selection sheets cannot be submitted without the relevant teacher's signature
7. Ask you parent to sign the course selection sheet
8. Submit the course selection form to student reception by the due date.

IMPORTANT NOTE

Courses will only run where there are sufficient student numbers. This is determined by the Administration. Students will be notified if courses are not able to run.



PROPOSED COURSES 2012

The following is a list of courses on offer at Murdoch College for 2012. Course availability is subject to **minimum enrolments**.

List A		
SUBJECT		Suitable for use for ATAR
Business Management & Enterprise	1AB	No
	2AB	Yes
Drama	2AB	Yes
Economics	2AB	Yes
English	1CD	No
	2CD	Yes
English Literature	2AB	Yes
English as an Additional Language Dialect	1CD	No
	2AB	Yes
Japanese Second Language	2AB	Yes
Media Studies	1CD	No
	2AB	Yes
Modern History	1AB	No
	2AB	Yes
Music	2AB	No
Politics and Law	2AB	Yes
Visual Art	1CD	No
	2AB	Yes

List B		
SUBJECT		Suitable for use for ATAR
Accounting and Finance	1AB	No
	2AB	Yes
Applied Information Technology	2AB	Yes
Biological Science	2AB	Yes
Chemistry	2AB	Yes
Human Biological Science	2AB	Yes
Mathematics	1DE	No
	2AB	No
	2CD	Yes
	3AB	Yes
Mathematics Specialist	3AB	Yes
Outdoor Education	1AB	No
Physical Education Studies	1AB	No
	2AB	Yes
Physics	2AB	Yes

Note: To produce a competitive ATAR a maximum of two Stage 2 units should be selected.



SECTION 4 - LIST A, COURSE DESCRIPTIONS

THE ARTS

- Visual Arts 1C/D
- Visual Arts 2A/B
- Drama 2A/B
- Music 2A/B
- Media Production and Analysis 1C/D
- Media Production and Analysis 2A/B

VISUAL ARTS 1C/D

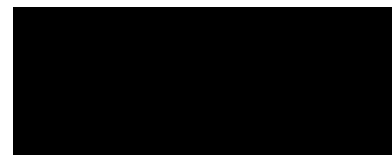
The focus for this course is inspirations and investigations. Students become aware that artists gain inspiration and generate ideas from diverse sources. Through discussion, exploration, investigation and experimentation, they develop skills in recording observations, developing ideas through visual inquiry and creating artworks using a range of techniques and processes. Students investigate a variety of selected artists’ work to further develop their understanding of the creative process. They investigate styles of representation and explore the expressive potential of media, techniques and processes in the creation of their artworks, while refining their reflection and decision making skills.

Suitable Pathway	Graduation
Prerequisite	None
Desirable	An interest in Visual Art. Basic drawing skills, Sound research and arts response skills
Contact Person	Ms Claire Symmans symmansc@murdochcollege.wa.edu.au

VISUAL ARTS 2A/B

The focus for this course is differences and identities. It covers different forms of visual art from past and present contexts and provides students with a range of sources of inspiration and stimulus for developing ideas and producing original artworks. They explore different materials, media and techniques when exploring and expressing their ideas. Students explore concepts or issues related to personal, social, cultural or gender identity. They investigate themes of personal interest and a range of observational, conceptual and/or imaginative starting points for visual exploration. They become aware that art may give form to ideas and issues that concern the wider community and develop understandings of how the visual arts may be both socially affirming and challenging.

Suitable Pathway	Graduation, ATAR, WAUPP
Prerequisite	C grade or better in 1CD Visual Art or equivalent
Desirable	An interest in Visual Art. Sound drawing skills. Sound art research, analytical essay and exam writing skills
Contact Person	Ms Claire Symmans symmansc@murdochcollege.wa.edu.au



DRAMA 2A/B

The focus for this course is dramatic action and challenge and identity. It covers representational and/or realistic drama forms and styles. Students explore techniques of characterisation through different approaches to text interpretation, particularly those based on the work of Stanislavski and others who followed. Students consider the dynamic role of drama in shaping cultural and personal identity and how drama can provide a commentary or critique that may challenge conventional thinking. They extend their knowledge of drama forms and styles and learn about the work of particular practitioners whose approaches to drama encompass presentational and/or non-realist drama.

Suitable Pathway	Graduation, ATAR
Prerequisite	C grade or better in Year 10 Drama
Desirable	Interest in dramatic action
Contact Person	Ms Lisa Barrett barrettl@murdochcollege.wa.edu.au

MUSIC 2A/B

Across the two units, students will study a range of repertoire that enables them to develop an understanding of the elements of music and apply these through creating, composing, performing and responding to music. Students explore how social, cultural and historical factors shape music. Students studying in these units are expected to develop an understanding of the application of western staff notation, this being an essential component of the Stage 2 WACE examination.

Suitable Pathway	Graduation, ATAR
Prerequisite	B grade or better in Year 10 Music or equivalent
Compulsory	Currently learning an instrument. Ongoing lessons will need to be with a teacher approved by the music department.
Contact Person	Mr Rory Marchant marchantr@murdochcollege.wa.edu.au

MEDIA PRODUCTION AND ANALYSIS 1C/D

The focus for this course is entertainment and info-tainment. Students view, listen to, and analyse relevant media texts as their experience of the language of media is reinforced. They examine how audiences' cultural experiences influence their responses to media. They build upon basic production processes and create their own productions. A range of non-fiction commercial and non-commercial media styles and genre provide opportunities to examine how reality is dramatized and re-presented whilst engaging and informing audiences. Students create their own non-fiction media works learning about aspects of production.

Suitable Pathway	Graduation
Prerequisite	C grade or better in Year 10 Drama or equivalent
Desirable	Interest in Media
Contact Person	Ms Lisa Barrett barrettl@murdochcollege.wa.edu.au



MEDIA PRODUCTION AND ANALYSIS 2A/B

The focus for course is popular culture such as that demonstrated by reality television, popular music clips, tabloid press, interactive forms and animation. Students also focus on broadcasting in forms such as television, press, radio or photojournalism. Students learn to interpret how codes and conventions are used to create meanings in a variety of ways in different forms of media. They create their own productions as they apply their understanding of media language and work in specific contexts. Students explore journalistic or documentary texts as they research how cultural groups and issues are represented and reported. They become increasingly aware of production responsibilities and independent, as they manipulate technologies to express ideas in their productions.

Suitable Pathway	Graduation, ATAR, WAUPP
Prerequisite	B grade or better in Year 10 Media or equivalent
Desirable	A love of photography and film
Contact Person	Ms Lisa Barrett barrettl@murdochcollege.wa.edu.au

ENTERPRISE

- Business Management and Enterprise 1A/B
- Business Management and Enterprise 2A/B

BUSINESS MANAGEMENT AND ENTERPRISE 1A/B

The focus of this course is the role of business in Australia and contexts related to initiative and inspiration. These are the values of the dynamic and imaginative entrepreneur or business manager. Most people have had consumer experiences, whether it is using a mobile phone, watching TV or paying for and using other goods and services. Therefore, learning contexts are selected that tap into these interests and build upon this informal understanding. Different perspectives on the contribution of business to society are considered. Opportunities are provided to explore business start-ups and to recognise the factors that contribute to business success. Entrepreneurship and innovative thinking are introduced, generating ideas and proposals that may be suitable for business ventures. These proposals are then developed into a business plan.

Suitable Pathway	Graduation
Prerequisite	None
Desirable	An interest in business in Australia
Contact People	Mrs Gemma Colgan colgang@murdochcollege.wa.edu.au



BUSINESS MANAGEMENT AND ENTERPRISE 2A/B

The focus is on marketing and business success and prosperity and on contexts related to building business, considering the challenges faced by businesses that are expanding. The unit explores what it takes to be successful and to build businesses beyond the initial start-up Stage. Opportunities are identified and assessed, taking into account social considerations. These opportunities are communicated in a variety of ways, exploring challenging ideas and issues. The students explore business growth across a range of industry sectors and examines the factors that impact upon this growth with a particular emphasis on human resource management.

Suitable Pathway	Graduation, ATAR, WAUPP
Prerequisite	None
Desirable	An interest in business success
Contact People	Mrs Christine Collins collinsc@murdochcollege.wa.edu.au Mrs Gemma Colgan colgang@murdochcollege.wa.edu.au

ENGLISH

- English 1C/D
- English 2A/B
- Literature 2A/B

ENGLISH COURSE SELECTION

Selecting the right English course for Years 11 and 12 can be a confusing process. It can be difficult to know what course best suits your abilities and your ambitions for the future.

The first decision that needs to be made is whether or not you require a course that forms part of a tertiary pathway or a TAFE pathway. It is very important to note that tertiary pathway courses do not effectively double as pathways for TAFE entrance, as tertiary entrance is determined by a numeric mark, whereas TAFE entrance is determined by the awarded Grade.

It is therefore imperative that if you wish to maximise your chances of gaining entry into TAFE that you select 1C/D, 2A/B or 2C/D English in Year 12.

ENGLISH 1C/D

English 1C/D is the only wholly school assessed course offered in Year 11 and 12. All students should be able to complete it, but not all students will be able to excel in it. Nevertheless it presents the majority of hardworking students the opportunity to achieve a high grade which will maximise the chance of

TAFE entry into a desired course.

While there are no prerequisite marks for entry, students achieving a mark below 50% in English 2A/B in year 11 are reminded of the need to achieve a C average across Years 11 and 12 in order to attain secondary graduation.

ENGLISH 2A/B

English 2A/B is designed for students who have enjoy and attain a mark of 60% in Year 10 English. If the student wishes to select English 2A/B and attain a mark less than 60% they must discuss this with Mr Owen, Ms Shortland Jones or Mrs Davis



LITERATURE 2AB

Students who attain a mark of 65% or better in Year 10 may select 2A/B Literature. It is designed as a challenging and extremely rewarding course, 2A/B Literature is for the most capable of humanities students who desire to attain the highest level of literary and/or cultural awareness, and who wish to develop their written (and verbal) language skills to the highest possible level. It is a course that suits students with ambitions requiring extremely high level language skills (such as Law) and for students desiring to pursue their study of the humanities at a tertiary level. It is not an exclusive course, but its challenges and texts will only appeal to certain students whose love of learning, literature and language is pronounced.

ENGLISH 1C/D

The focus of this course is on language and Self and language and society. Students learn to use language to present their experiences, ideas and opinions more effectively, exploring how language can be used differently in different situations. They develop their ability to express responses to texts. They also develop the skills and knowledge needed to expand the range of texts and types of language used for communication and in mass media texts. Students study workplace documents, mass media texts and popular culture texts. Students explore and develop language skills to assist their participation in work and society, such as finding, accessing, using and evaluating information. They also develop skills such as comprehending, interpreting and evaluating texts, identifying ideas, attitudes and opinions, and discussing their responses and those of other people. Students study more complex workplace documents as well as mass media texts, popular culture texts and less complex literary texts.

Suitable Pathway	Graduation	
Prerequisite	None	
Desirable	None	
Contact Person	Mr Carl Owen	owenc@murdochcollege.wa.edu.au
	Mrs Napur Davis	davisn@murdochcollege.wa.edu.au
	Ms Kathryn Shortland-Jones	jonesk@murdochcollege.wa.edu.au

ENGLISH 2A/B

Course Outline

The focus for this course is language and action and language and the world. Students develop their language skills by exploring issues of concern or controversy, past or present, and by examining how language is used in relation to these topics: how language can be used to influence attitudes and bring about action or change, and how such uses of language can be challenged and/or resisted. They consider the relationship between language and power; representations of power through language; how particular uses of language can be empowering or disempowering and how they can empower themselves through language. Students study literary texts, mass media texts and popular culture texts. Students examine the relationship between language and the world by exploring how language offers particular ideas and information about topics, events or people. They listen, view and read critically, identifying and critiquing particular uses of language and representations within the texts, substantiating their views in written, visual and oral form. Students study literary, mass media and popular culture texts.

Suitable Pathway	Graduation, ATAR	
Prerequisite	60% Year 10 English or by negotiation	
Desirable	Desire to develop language skills	
Contact Person	Mr Carl Owen	owenc@murdochcollege.wa.edu.au
	Mrs Napur Davis	davisn@murdochcollege.wa.edu.au
	Ms Kathryn Shortland-Jones	jonesk@murdochcollege.wa.edu.au



LITERATURE 2A/B

Course Outline

Across this course, it is expected that students develop a more sophisticated understanding of the elements of literary study. They are also expected to respond to texts of increasing complexity. The students explore the different ways in which literary texts relate to the historical conditions, value systems and cultural life of particular societies. They consider how literary texts sometimes challenge and at other times naturalise the ideas of the society in which they are produced, as well as influencing the judgements we make about these ideas. Students examine how literary texts may be read out of their time and place and still reflect and produce culturally significant ideas. In this way, they engage with and develop the notion of multiple readings. Students consider how and why literary texts might conform to or challenge generic expectations. Students also consider the ways that a nation or culture comes to recognise itself through the literary texts that it produces. Students are required to create their own literary pieces.

Suitable Pathway	Graduation, ATAR	
Prerequisite	65% and above in Year 10 English	
Desirable	A desire to develop a sophisticated understanding of elements of literary skills	
Contact Person	Mr Carl Owen	owenc@murdochcollege.wa.edu.au
	Mrs Napur Davis	davisn@murdochcollege.wa.edu.au
	Ms Kathryn Shortland-Jones	jonesk@murdochcollege.wa.edu.au

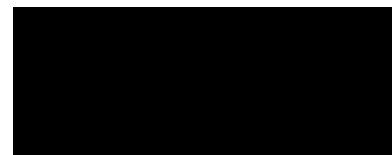
SECOND LANGUAGES

- English as an additional Language/Dialect 1C/D
- English as an additional Language/Dialect 2A/B
- Japanese as a Second Language 2A/B

ENGLISH AS AN ADDITIONAL LANGUAGE/DIALECT 1C/D

The focus for this course is Life Experiences and Cultural Differences and Communities. Through the exploration of topics such as family structures, people of significance and the rights or obligations of sports heroes, students have the opportunity to develop an appreciation of cultural differences and values and learn to take audience and purpose into account effectively. They learn about the differences between common text types and the cultural purposes and contexts associated with these. Using knowledge and skills from their existing languages and cultures, students consolidate their English language acquisition in order to share and reflect on their experiences of and participation in communities. They use SA English to make comparisons of aspects of cultural communities, and to engage with a range of texts to further develop the concept of the role of tradition in the maintenance of cultural identity and communities.

Suitable Pathway	Graduation
Prerequisite	Less than six years of being taught in English
Desirable	An appreciation of cultural differences
Contact Person	Mr Ernesto Ramirez ramireze@murdochcollege.wa.edu.au



ENGLISH AS AN ADDITIONAL LANGUAGE/DIALECT 2A/B

The focus for these units is Ways of Life and Making Choices. From their position as cross-cultural learners, students examine issues and different points of views and develop, present and express ideas and opinions in relation to these. Through the investigation of topics such as attitudes towards work, leisure, entertainment, music, fashion and self-image, students have the opportunity to explore their relationships with cultures, deepen their appreciation of cultural differences and values, and develop their ability to use English. Through the exploration of topics, students examine the ways language can be used in relation to these to analyse choices, influence attitudes and affect changes. They investigate issues presented in reports, newspapers, investigative television programs, leaflets and forums and use persuasive and emotive language to create a variety of texts designed to present a stance and to sway the reader or viewer.

Suitable Pathway	Graduation, ATAR
Prerequisite	60% or more in Year 10 English as a Second Language/Dialect
Desirable	An interest in investigations
Contact Person	Mr Ernesto Ramirez ramireze@murdochcollege.wa.edu.au

JAPANESE SECOND LANGUAGE 2A/B

The focus for this course is ホームステイ (home-stay). Students make arrangements to have an overseas student visit their home in Australia. This unit explores aspects such as typical rules and routines of home and school life, networking with friends, celebrations and gift giving. . Another focus for this unit is ようこそ、私の国(くに)へ! (welcome to my country). Students explore situations and events associated with welcoming visitors to Australia. They compare and contrast their own lifestyles with other cultures specifically in the areas of food etiquette, maintaining a healthy lifestyle and leisure activities.

Suitable Pathway	Graduation, ATAR
Prerequisite	50% or more in Year 10 Japanese
Desirable	A desire to host a Japanese home-stay student
Contact Person	Mrs Danielle de Witt dewittd@murdochcollege.wa.edu.au



HUMANITIES

- Economics 2A/B
- Modern History 1A/B
- Modern History 2A/B
- Politics & Law 2A/B

ECONOMICS 2A/B

The focus for this unit is markets and macroeconomics. It explores the key role markets play in determining the wellbeing of individuals and society, as well as the limitations of markets. The emphasis is on understanding the operation of real world markets that are relevant to students. It is an introduction to macroeconomics and the government’s role in the economy. It explores macroeconomic issues such as economic growth, inflation and unemployment with a focus on the Australian economy.

Suitable Pathway	Graduation, ATAR, WAUPP
Prerequisite	A ‘C’ grade in year 10 Economics unit
Desirable	An interest in macroeconomics
Contact Person	Mrs Gemma Colgan colgang@murdochcollege.wa.edu.au

MODERN HISTORY 1A/B

The focus for this course is people, place and time as well as power and authority. It introduces students to the historian’s methods of finding and communicating reliable information gained from a variety of primary and secondary sources. It allows them to develop inquiry skills, develop different forms of communicating findings and to use ethical behaviour when communicating those findings. Students learn that societies consist of individuals and institutions that have various types of power and authority and that these interact with each other. Students develop critical thinking skills related to comparing and contrasting information, distinguish between the usefulness of sources and understand that there are different points of view and alternative accounts of history.

Suitable Pathway	Graduation
Prerequisite	None
Desirable	A passion for history
Contact Person	Ms Kate Dunbar-Smith dunbarsmithk@murdochcollege.wa.edu.au



MODERN HISTORY 2A/B

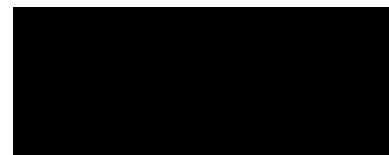
The focus for this course is societies and change and historical trends and movements. Students become aware of the evolving nature of societies and the various forces for continuity and change that exist. They learn that some values, beliefs and traditions are linked to the identity of a society, but others are transitory. Also, that in any period of change there are those individuals and institutions that support change, but others that oppose it; and that there are different interpretations of the resultant society. Students understand that throughout history there have been events, ideas, beliefs and values that have contributed to underlying historical trends and movements. They understand that some of these trends and movements have lasted thousands of years, whilst others have had a fleeting impact on society, and that these trends and movements have met with varying degrees of support and opposition, sometimes causing conflict. They are able to note cause, impact and consequence, action and reaction and trends of continuity and change.

Suitable Pathway	Graduation, ATAR
Prerequisite	A 'C' grade in year 10 history
Desirable	A passion for history
Contact Person	Ms Kate Dunbar-Smith dunbarsmithk@murdochcollege.wa.edu.au

POLITICS AND LAW 2A/B

The focus for this course is political and legal systems and representation and justice. Students critically examine the principles, structures and processes of political and legal systems. Students critically examine and assess political and legal systems in relation to representative democracy and justice.

Suitable Pathway	Graduation, ATAR
Prerequisite	A 'C' grade in year 10 Politics and Law
Desirable	Interest in legal systems
Contact Person	Mr Dave McKenna mckennad@murdochcollege.wa.edu.au



SECTION 5 - LIST B, COURSE DESCRIPTIONS

ACCOUNTING AND FINANCE

- Accounting and Finance 1A/B
- Accounting and Finance 2A/B

ACCOUNTING AND FINANCE 1A/B

The focus for this course is personal finance and small cash entities. Students are introduced to the concepts, principles and terminology used in financial decision-making and management on a personal basis. They learn about the main institutions that operate in financial markets and how governments and other community bodies can affect the way individuals and groups make financial decisions. Students learn about the main financial documents and reports used in personal financial transactions and decision-making and the systems that facilitate individuals to carry out their financial transactions. Students extend their knowledge of the fundamental principles and conventions of accounting and finance to learn how these apply to the establishment and operations of small cash entities including small incorporated bodies. They learn about the main financial institutions that small cash entities deal with and understand how governments and other community bodies can influence their decision-making processes. Students learn about financial record-keeping on a cash basis for small entities, as well as the main financial documents and reports used in the financial transactions of small incorporated entities. They learn the main issues involved in business decision-making and carry out simple analyses of given information to determine the financial performance and position of a business.

Suitable Pathway	Graduation
Prerequisite	None
Desirable	Interest in personal finance
Contact Person	Mr Carl Vecchio vecchioc@murdochcollege.wa.edu.au

ACCOUNTING AND FINANCE 2A/B

The focus for this course is double entry accounting for small businesses and accrual accounting. 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 Goods and Services Tax (GST). Students learn about the various forms of business organisations adopted by small business. 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.

Suitable Pathway	Graduation, ATAR, WAUPP
Prerequisite	None
Desirable	An interest in accounting for small businesses
Contact Person	Mr Carl Vecchio vecchioc@murdochcollege.wa.edu.au



APPLIED INFORMATION TECHNOLOGY

APPLIED INFORMATION TECHNOLOGY 2A/B

The focus for this course is media and business information and communication technologies. The emphasis is on the use of information technology to collect, store and manipulate digital media. Students consider the range of products available to create visual and audio communications. They examine trends in digital media transmissions and the social and legal implications in the use of these technologies. Skills, principles and practices associated with various types of businesses to enhance students’ career prospects are emphasised. Students examine the use of ICT in a range of administrative and business environments. They identify and explain the components and configuration of a computer system to meet the needs of the organisation. Students design information solutions for problems encountered in these contexts and understand the social issues inherent in work practices.

Suitable Pathway	Graduation, ATAR, WAUPP
Prerequisite	None
Desirable	Completion of Year 10 Computing Option
Contact Person	Mr Chris Morgan morganc@murdochcollege.wa.edu.au

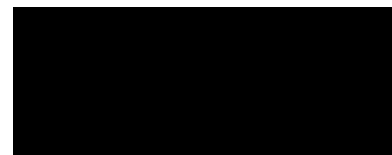
PHYSICAL EDUCATION

- Outdoor Education 1A/B
- Physical Education Studies 2A/B

OUTDOOR EDUCATION 1A/B

The focus for this course is facing challenges in the outdoors. Students engage in a range of outdoor adventure activities that offer challenges and encourage students to step outside their comfort zone. Students are introduced to outdoor adventure activities where they can develop and improve their technical skills and apply appropriate practices to ensure safe participation. Students consider planning and resource requirements to deal with extended excursions/short duration expeditions and are introduced to simple risk assessment models to assist decision-making and safe practices to cope with challenging situations and environments, before reflecting and learning from the experiences. They work to develop time management and goal setting skills to work with others and strategies for building group relationships. They understand the main styles of leadership and how to use strategies to promote effective groups. They develop understanding of local natural environments and understand the weather. They explore the technologies role in mediating their relationship with nature and their values, and map minimal impact practices related to the outdoor activity engaged in. Conservation and biodiversity and management plans are introduced.

Suitable Pathway	Graduation
Prerequisite	None
Desirable	Interest in developing self-confidence and leadership skills
Contact Person	Mr Toby Lewis lewist@murdochcollege.wa.edu.au



PHYSICAL EDUCATION STUDIES 2A/B

The focus for this course is exploring personal potential in relation to participation in physical activity and realising personal potential. The focus of learning is on specific training methods, strategies and programs to enhance personal movement competency and aspects of fitness. It also focuses on instruction and practice, extending the repertoire of movement skills, strategies, tactics and problem-solving abilities in game or performance situations. It covers strategies to extend skills for communicating feedback, debriefing, goal setting and to support the development of positive attitudes towards participation. Study of initiatives and developments in the past and internationally extends students' understanding of physical activity and sport from social perspectives. Working with peers, students explore the practical application of concepts and principles relating to training (mental and physical), skill development and movement competency, psychological aspects of participation and leadership and decision-making styles. Students explore complex physical activity problems, develop effective responses and explore the principle of the transfer of learning.

Suitable Pathway	Graduation, ATAR, MCMU
Prerequisite	None
Desirable	Interest in participation in physical activity
Contact Person	Mr Toby Lewis lewist@murdochcollege.wa.edu.au

MATHEMATICS AND MATHEMATICS SPECIALIST

- Mathematics 1D/E
- Mathematics 2A/B
- Mathematics 2C/D
- Mathematics 3A/B
- Mathematics Specialist 3A/B

MATHEMATICS 1D/E

In this course students use integers, decimals, fractions, percentages and ratios for practical purposes. They apply mathematics in making financial decisions. They write word sentences algebraically and solve simple algebraic equations. They calculate area and perimeters of circles and use the Pythagoras' theorem for calculating the length of the sides of right triangles. They describe the effects of reflecting, rotating and translating shapes in design, and enlarge, reduce and distort figures. They interpret detailed maps. Students collect measurement data from fair samples, display data in tables and graphs, calculate averages and describe spread of data, and compare datasets. They use mental strategies, written methods, calculators and computer technologies where appropriate. Students use positive and negative numbers and numbers with powers for practical purposes. They calculate interest and repayments for loans. They draw graphs to represent real situations, and use them to describe how quantities are related. They use trigonometry to calculate measurements in right triangles, and calculate volume and surface area of shapes. They analyse networks. Students simulate everyday chance events, calculate probabilities and predict using probabilities. They collect bivariate data relevant to them, display the data in tables and graphs, and describe trends. They use mental strategies, written methods, calculators and computer technologies where appropriate.

Suitable Pathway	Graduation
Prerequisite	None
Desirable	An interest in using mathematics in life
Contact Person	Mrs Jane Clough cloughj@murdochcollege.wa.edu.au



MATHEMATICS 2A/B

In this course students apply ratios, rates and direct proportion in practical situations. They calculate profit, loss, discount and commission in financial contexts. They study introductory algebra and linear relationships in numeric, algebraic and graphical forms. They use Pythagoras’ theorem for the sides of triangles and analyse the reflection, rotation and translation of shapes in design. Students collect data from fair samples, and represent and interpret the data. They use mental and written methods and technologies where appropriate. Students study and apply exponential relationships. They develop skills for solving equations algebraically and graphically, and investigate and generalise number patterns. They use coordinate geometry in two dimensions. They use formulas directly and inversely for calculations involving three-dimensional shapes. They apply trigonometry in right triangles. They represent information using network diagrams. Students simulate everyday chance events, calculate and interpret probabilities, and collect and analyse bivariate and time series data. They use mental and written methods and technologies where appropriate.

Suitable Pathway	Graduation, ATAR
Prerequisite	A ‘C’ grade in Year 10 Mathematics
Desirable	An interest in mathematics
Contact Person	Mrs Jane Clough cloughj@murdochcollege.wa.edu.au

MATHEMATICS 2C/D

Students calculate interest and repayments in order to make decisions about savings and loans, and they interpret information on financial statements that are part of everyday living. They study and apply quadratic relationships. They extend their knowledge of coordinate geometry, and represent information in networks and interpret network diagrams. Students calculate and interpret probabilities for events with more than one chance component. They analyse and compare datasets, determine trends in data and use trend lines for prediction. They use mental and written methods and technologies where appropriate. Students study functions and their graphs. They formulate recursion rules and apply recursion in practical situations. They explore patterns, making conjectures and testing them. They use trigonometry for the solution of right and acute triangles. Students simulate chance events on technologies, and calculate and interpret probabilities for chance events that occur in two- or three- stages. They plan random samples, collect, and analyse data from them, and infer results for populations. They use mental and written methods and technologies where appropriate. Mathematics 2C/D is suitable for general tertiary entry, but it does not provide adequate preparation for tertiary courses in which knowledge of calculus, statistical inference or high level algebra would be useful.

Suitable Pathway	Graduation, ATAR, WAUPP
Prerequisite	C grade or better in 2A/B or equivalent
Desirable	A desire to complete a mathematics course to suit general tertiary entry
Contact Person	Mrs Jane Clough cloughj@murdochcollege.wa.edu.au



MATHEMATICS 3A/B

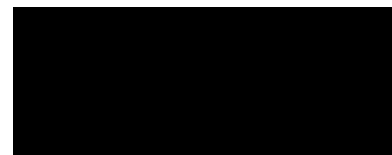
Students explore and analyse the properties of functions and their graphs. They develop and use algebraic skills for solving equations. They apply recursion in practical situations, including for finance. They use trigonometry for the solution of triangles. Students use counting principles to calculate probabilities and analyse normally distributed data. They plan sampling methods, analyse data from samples and infer results for populations. They use mental and written methods and technologies where appropriate. Students study differential and integral calculus of polynomial functions and use calculus in optimisation problems. They develop algebraic skills for solving equations and apply them in linear programming. They analyse and construct project networks. They reason deductively in algebra and geometry. Students analyse bivariate data, and argue to support or contest conclusions about data. They use mental and written methods and technologies where appropriate. This option is suitable preparation for tertiary courses in biological, social or management science

Suitable Pathway	Graduation, ATAR, WAUPP
Prerequisite	C grade or better in 2C/D or equivalent
Desirable	A desire to complete a mathematics course suitable for tertiary courses in biological, social or management science
Contact Person	Mrs Jane Clough cloughj@murdochcollege.wa.edu.au

MATHEMATICS: SPECIALIST 3A/B

The focus for this course is on representation and students use a variety of forms. A strong distinction is drawn between exact and approximate results and their practical applications in particular contexts when solving problems. Students use mathematical models to understand situations defined in terms of change. Mathematical reasoning is introduced and used to establish laws and investigate functions. Students explore new ways of expressing and analysing change, including limiting behaviour and continuity. Students establish and use properties to develop deductive proofs. By building strong algebraic skills to support mathematical arguments, supplemented by the use of appropriate technology, students investigate more complex models to solve practical problems.

Suitable Pathway	Graduation, ATAR, WAUPP
Prerequisite	b grade or better in Mathematics 2C/D
Desirable	A desire to enter a tertiary course involving engineering, computing, the physical sciences or pure mathematics
Contact Person	Mrs Jane Clough cloughj@murdochcollege.wa.edu.au



SCIENCE

- Biological Science 2A/B
- Human Biological Science 2A/B
- Chemistry 2A/B
- Physics 2A/B

BIOLOGICAL SCIENCE 2A/B

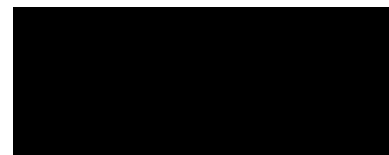
Ecosystems have a diverse range of organisms that can be classified. Ecosystems are made up of communities and the surrounding environment through which matter cycles and energy flows. Environments create challenges to survival that are reflected in differing structures and functions of organisms. Organisms in systems form populations. This unit explores factors that affect population dynamics. Reproduction results in growth of populations. DNA controls the pattern of inheritance of traits from one generation to the next with the gene as the unit of inheritance. Many organisms have different developmental Stages in their life cycles in order to maximise their survival.

Suitable Pathway	Graduation, ATAR
Prerequisite	Minimum of a C grade in Year 10 Biology Unit
Desirable	An interest in Biology and the Environment.
Contact Person	Ms Laura Magro magrol@murdochcollege.wa.edu.au

HUMAN BIOLOGICAL SCIENCE 2A/B

The focus for this course is functioning humans and human survival. The functioning body has many needs including food, oxygen and the removal of its wastes. For each one of these needs, the body has a system that fulfils them, and a transport system that links them together. Cells that make up the body rely on these systems to survive. All of the cell processes including metabolism and cell division have specific requirements that must be met from the surrounding environment. Offspring show features of both parents and it is possible to predict these due to the known patterns of inheritance. Many factors can affect the body's health and it must be able to defend itself. Each system has its own defence mechanisms and can be assisted by the use of medical preparations and hygiene practices. Almost everything that happens inside the human body can be traced back to DNA. Humans start as a single cell that develops into all of the organs and tissues seen in the body. The formation of that original single cell involves many carefully controlled and timed processes in males and females. Once formed, this cell undergoes many changes during pregnancy and into infancy and is susceptible to environmental threats from which it needs protection. The environment plays a large role in determining the survival of individuals.

Suitable Pathway	Graduation, ATAR, WAUPP
Prerequisite	A 'C' grade or better in Year 10 Biology unit
Desirable	An interest in the human biology
Contact Person	Mr Anthony Britza britzaa@murdochcollege.wa.edu.au



CHEMISTRY 2A/B

The focus for this course is chemistry in and around the home and chemistry in the environment. In this unit, students develop more formal understandings of chemical structure, change and language within familiar contexts. Students develop formal understandings of acids and bases, oxidation and reduction, and organic chemistry through environmental contexts.

Suitable Pathway	Graduation, ATAR, WAUPP, MCMU	
Prerequisite	A 'B' grade or better in Year 10 Chemistry unit	
Desirable	An interest in chemistry	
Contact Person	Mrs Fiona Anthony	anthonyf@murdochcollege.wa.edu.au
	Mr Peter Spasic	spasicp@murdochcollege.wa.edu.au

PHYSICS 2A/B

The course content organisers are motion and forces explore motion in one dimension to solve both qualitative and quantitative problems. Through the study of nuclear physics, they learn about atomic structure and subatomic particles to understand and appreciate phenomena such as those that lead to the emission of nuclear radiation, and nuclear energy. They are encouraged to develop their own investigations of real world problems, extending their investigative and communication skills. They learn that uncertainties are an integral part of the measurements made in their experiments, and engage with more abstract questions to select appropriate problem-solving strategies. The course content organisers are also heating and cooling and electrical fundamentals. In learning about heating and cooling, students gain insight into temperature measurement, internal energy, conduction and convection and radiation to develop understandings about how energy is transferred by heat through different types of materials. They also examine the thermal properties of substances, including thermal expansion, specific heat capacity and latent heat. Within electrical fundamentals, they learn to apply the concepts of charge and energy transfer to situations involving both electrostatics and current electricity. They construct and study characteristics of electric circuits and learn how to work safely with electricity. They research real world problems and plan to carry out an investigation, and deal with abstract concepts and principles when selecting problem-solving techniques.

Suitable Pathway	Graduation, ATAR, WAUPP	
Prerequisite	A 'B' grade or Year 10 Physics unit	
Desirable	An strong interest in physics	
Contact Person	Mr Stuart Duvall	duvalls@murdochcollege.wa.edu.au

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