Steps to Uni for Year 10 Students
Part 1: Year 10 - A year of decisions

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Part 1: Year 10 – A year of decisions

This booklet is for Year 10 students choosing their courses for Years 11 and 12. Its aim is to help you think about the next two years and make the best decisions for successful study in senior school and beyond.

Introduction

In Year 10 you will choose the HSC courses that you will study for the next two years. Although there are many pathways to uni or college, choosing the right courses for your HSC can make it easier to get into university and succeed in your studies.
Uni Open days

Experience life on campus, talk to faculty staff and meet current students at a uni open day.

Or take advantage of an expanding schedule of online tours and information sessions.

Find all the details for 2021 at uac.edu.au/open-days.

In this booklet, the universities and colleges that make offers through UAC have listed the courses they plan to offer in 2024; that is, the degrees and diplomas you’ll be able to study when you leave school. For each course they have also set out, where applicable, details of:

- areas, or topics, you'll study during the course
- prerequisites
- assumed knowledge
- recommended studies
- selection criteria in addition to the ATAR.

When you’re choosing your HSC courses, it’s particularly important to consider the course prerequisites and assumed knowledge.

**Prerequisites:** These are HSC courses you need to have completed in order to be offered a place in a university course (course prerequisites) or a subject within that course (subject prerequisites). For example, if you want to study a Bachelor of Engineering, the university might require you to have studied Mathematics Advanced.

**Assumed knowledge:** It’s very common for institutions to assume you have knowledge of specific NSW HSC courses when you start your university course. They will start teaching the course based on that assumption. So, if you haven’t studied the HSC course you can still be selected for the university course, but you may have some difficulty coping with your studies.

Most institutions offer bridging courses if you have not studied the HSC courses listed as assumed knowledge, but bridging courses are not equivalent to the two-year HSC course and may add significantly to your workload.

Studying HSC courses listed as recommended studies will be helpful when you study the degree but the institution will not assume you have studied them.
This booklet also provides:
- general information about HSC courses, how the ATAR is calculated and used for university entry, and why your selection rank for a course might be higher than your ATAR
- worksheets to guide you through the steps involved in choosing your courses for Years 11 and 12.

If you’re not sure about the exact career path you want to follow, this booklet can help you choose courses that will keep your options open and give you the best chance of succeeding in the future.

About UAC
The Universities Admissions Centre (UAC) receives and processes applications for undergraduate and postgraduate courses at most universities – and some colleges – in NSW and the ACT.

In 2021, there are more than 2,000 undergraduate courses listed through UAC.

UAC also:
- calculates and provides the Australian Tertiary Admission Rank (ATAR) to NSW HSC students
- processes applications for some university access schemes and scholarships.

UAC jargon
Here are definitions of the common terms used by UAC and universities.

Adjustment factors
Factors that universities consider in order to increase your selection rank for a particular course (eg educational disadvantage or high achievement in an HSC course related to your preferred degree). They do not change your ATAR.

Admission criteria
The minimum qualifications you require to be considered for entry to a particular course. In addition to a qualification (eg HSC, ATAR), you may need to complete a personal statement, questionnaire, portfolio of work, audition, interview or test. If you meet the admission criteria, you then compete against other applicants for a place in the course.

You should find out as soon as possible if the course you’re interested in has admission criteria other than the HSC/ATAR, as you may need to work on these during Years 11 and 12.

Advanced diploma
An award that usually requires two years of full-time, or equivalent part-time, study. This is the highest of the undergraduate diploma awards.
Areas of study
Within a university course you study many different topics, but you generally complete one or two major areas of study, specialisations or sub-majors, plus additional or supporting subjects or units.

Associate degree
An award requiring two years of full-time, or equivalent part-time, study. It is equivalent to the first two years of a three-year degree course.

Assumed knowledge
Some institutions assume you have knowledge of specific NSW HSC courses or equivalent when you start your course. If you haven’t completed the specified HSC course, you can still be selected for the university course, but you may have some difficulty coping with your studies. The university may suggest you enrol in a bridging course to gain basic knowledge of the subject.

ATAR (Australian Tertiary Admission Rank)
A measure of academic achievement in the HSC that helps institutions rank applicants for selection to university courses. The ATAR is a rank, not a percentage or a mark out of 100.

ATAR courses
Courses developed and examined by the NSW Education Standards Authority. Classified as Category A courses or Category B courses, these are the only courses that can be included in the ATAR calculations.

Bachelor degree
An award requiring three or four years of full-time, or equivalent part-time, study.

Bridging courses
Courses that enable you to achieve a basic level of assumed knowledge for a university course. These courses are only taught to an introductory level and are not equivalent to the two-year HSC course.

Category A courses
ATAR courses that have the academic rigour and depth of knowledge to provide an adequate background for university studies. They can all be used in the ATAR calculation.

Category B courses
ATAR courses that don't provide an adequate background for university studies but can contribute to the ATAR when combined with Category A courses. No more than 2 units of Category B courses can be included in the ATAR calculation.

Combined/double/dual degrees
Allow students to complete two degrees in less time than if the two degrees were studied one after the other.

Deferment
Delaying the commencement of a course, usually for six months or a year. Some institutions only grant deferments in special circumstances.

Diploma
An award usually requiring one year of full-time, or equivalent part-time, undergraduate study. These courses are usually characterised by more emphasis on practical skills than on the theoretical content.
HSC subjects and courses

An HSC subject is a general area of study or a key learning area (e.g., English).

An HSC course is a branch of study within a subject (e.g., English Studies, English Standard, English Advanced, English Extension 1, English Extension 2, English as an Additional Language or Dialect).

Institution

A provider of tertiary study, such as a university or a college. UAC’s participating institutions are those you apply to through UAC.

Selection rank

Your selection rank for a uni course takes into account all the criteria you are required to meet in order to gain entry to the course. As a Year 12 student, your selection rank is usually your ATAR plus any adjustment factors for which you are eligible. For example, if you do well in an HSC course related to the degree you want to study, the uni might increase your selection rank for that degree. If you are required to attend an interview or submit a portfolio, your performance in these will also contribute to your selection rank.

The lowest selection rank required to be offered a place in a course is determined by:

- the number of places available in the course
- the number of applicants for the course
- the quality of those applicants.

This means that the lowest selection ranks change from year to year and are impossible to predict before applicants are selected for a particular course in a particular year.

Open days

Scheduled days for prospective students to visit a university or college campus to view the facilities and meet academic staff and students. Usually only happen once or twice a year.

Pathway courses

Non-degree courses — such as foundation studies, preparatory courses and certificates, diplomas or associate degrees — offered by institutions to applicants who don’t meet the entry requirements for their degree or need further support and preparation before studying at degree level. Many institutions offer entry into the degree after successful completion of the corresponding pathway course. Some institutions offer pathway courses through UAC.

Prerequisites (see also Assumed knowledge)

A specified NSW HSC course that you need to have completed, or achieved a specified result in, before you can be considered for a place in the university course (course prerequisites) or a subject within that course (subject prerequisites).

Recommended studies

NSW HSC courses that institutions suggest will help you in your chosen degree. However, if you haven’t studied these HSC courses your chances of selection are not affected.

Undergraduate course

An entry-level course for first-time university students that leads to a first qualification, such as a bachelor degree, an associate diploma or a diploma.

NSW Education Standards Authority (NESA)

Sets the core curriculum for Kindergarten to Year 12, sets guidelines for school assessment tasks, and sets, organises and marks the HSC examinations for government and non-government schools in NSW.
Connect with us...

uac.edu.au

uacinfo
Understanding more about the HSC, the ATAR and applying to uni will help you make the best decisions about your courses.
The NSW HSC

Studying for the NSW HSC begins in Year 11 with preliminary courses and ends with the HSC exams at the end of Year 12. Your Year 12 assessment marks and your HSC exam marks will contribute equally to your final HSC marks.

Eligibility

To be eligible for the HSC you need to meet the following requirements:

- ✔ complete at least 12 units of preliminary courses in Year 11
- ✔ complete at least 10 units of courses in Year 12.

In each year your studies must include:

- ✔ 6 units of Board Developed Courses
- ✔ 2 units of a Board Developed Course in English
- ✔ 3 courses of 2 or more units (either Board Developed or Board Endorsed Courses)
- ✔ 4 subjects.

Being eligible for the HSC doesn’t necessarily mean you will be eligible for an ATAR: read the next section for ATAR eligibility requirements.

HSC courses

There are many HSC courses but not all of them can contribute to an ATAR.

ATAR courses

ATAR courses are developed and formally examined by NESA. These Board Developed courses are the only courses that can be included in ATAR calculations. They are classified as either Category A or Category B courses.

Category A courses have the academic rigour and depth of knowledge to provide a foundation for university studies.

Category B courses on their own don’t prepare you for university studies, but can contribute to the ATAR if the other courses included in the ATAR are the more academically demanding Category A courses.
For this reason, only 2 units of Category B courses can be included in the ATAR calculation.

HSC Board Developed courses that will be examined in 2023 are listed in the tables on pages 44–45.

Other courses
Vocational courses are industry-based, hands-on courses and usually include work skills and work placements. These courses may be delivered at your school, at another school or at TAFE.

TAFE-delivered HSC VET (TVET) courses are developed or endorsed by NESA and include Category B courses.

If the content of a course is endorsed – but not developed – by NESA, it will count towards your HSC but it will not contribute to your ATAR. Content Endorsed courses are listed on page 45.

Distance education
If you live in an area that is isolated, have special circumstances that prevent you from attending school on a regular basis or meet other criteria, you can study through distance education.

There are more than 100 HSC courses and UAC’s participating institutions are aware that not every school offers all courses. If your school does not offer a course recommended as preparation for university study, ask the institution about supplementary studies you may need to undertake.

The ATAR
The first thing to understand is that the ATAR is a rank, not a mark out of 100 or a percentage. It’s a number between 0.00 and 99.95 with increments of 0.05. It tells you about your position overall in the HSC in relation to your peers.

Think of it like a running race: your HSC marks indicate your time, while your ATAR indicates your place (first, second, third, and so on). Your position in the race depends not only on your time but on the times of the students you are competing with.

The median (or middle) ATAR is usually just below 70.00, while median HSC marks are often above 80.

You can access your ATAR on UAC’s website in December of the year you complete your HSC.

Eligibility
To be eligible for an ATAR, NSW students must satisfactorily complete at least 10 units of ATAR courses.

These ATAR courses must include:

- 8 units of Category A courses
- 2 units of English
- three Board Developed courses of 2 units or greater
- four subjects.
The last point is easy to overlook. A subject is an HSC area of study (eg mathematics). Within that subject there may be a number of courses (eg Mathematics Standard 1 or 2, Mathematics Advanced, Mathematics Extension 1, Mathematics Extension 2).

Let’s say a student studies the following courses:
- Mathematics Extension 1 and Extension 2
- English Advanced
- English Extension 1 and Extension 2
- Biology.

This student will not meet the four subjects requirement because they have only studied three subjects:
1. Mathematics
2. English

When you choose your program of study for the HSC, make sure you will be eligible for an ATAR if you want to study at university.

**How the ATAR is calculated**

Your ATAR is based on your scaled marks in 10 units of ATAR courses, which will include:
- your best 2 units of English
- your best 8 from your remaining courses, which can include up to 2 units of Category B courses.

**Satisfactorily completing a course**

You will be considered to have satisfactorily completed a course if, in your principal’s view, there is sufficient evidence that you have:
- followed the course developed or endorsed by NESA
- applied yourself with diligence and sustained effort to the set tasks and experiences provided in the course by the school
- achieved some or all of the course outcomes
- made a genuine attempt at assessment tasks that contribute to more than 50 per cent of the school assessment marks for that course.

You will also need to make a serious attempt at the examination for the course.

Failure to satisfactorily complete a course will result in that course not contributing to the eligibility requirements. If the course is a 2-unit course for which there is an associated extension course, neither course will contribute towards your ATAR.
ATAR and scaling myths

It’s a myth that choosing certain courses will automatically increase your ATAR. There is no magic formula for getting a good ATAR; it all depends on how well you’ve done in all your courses in comparison to other students.

Your HSC mark for a course will be scaled according to that course’s scaled mean. The scaled mean indicates the academic ability of students taking the course, not the perceived difficulty of the course:

- If a course has a high scaled mean it tells us that, on average, the ability of the students in that course is high: in general, they did well in their other courses.
- If a course has a low scaled mean it tells us that the ability of the students in that course ranges from high to low. It doesn’t mean that you can’t get a high ATAR if you study that course.

The following table illustrates these points using data from selected 2020 HSC courses.

<table>
<thead>
<tr>
<th>Category A course</th>
<th>Median performance band</th>
<th>HSC mean</th>
<th>Scaled mean</th>
<th>Max. ATAR achieved by a student taking the course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aboriginal Studies</td>
<td>4</td>
<td>70.4</td>
<td>29.0</td>
<td>99.35</td>
</tr>
<tr>
<td>Biology</td>
<td>4</td>
<td>72.8</td>
<td>52.0</td>
<td>99.95</td>
</tr>
<tr>
<td>English Advanced</td>
<td>5</td>
<td>81.6</td>
<td>64.8</td>
<td>99.95</td>
</tr>
<tr>
<td>Physics</td>
<td>4</td>
<td>74.4</td>
<td>61.8</td>
<td>99.95</td>
</tr>
<tr>
<td>Visual Arts</td>
<td>5</td>
<td>81.4</td>
<td>43.8</td>
<td>99.95</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category B course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitality</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Median performance band</th>
<th>HSC mean</th>
<th>Scaled mean</th>
<th>Max. ATAR achieved by a student taking the course</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>73.6</td>
<td>38.8</td>
<td>98.55</td>
</tr>
</tbody>
</table>

This student’s ATAR is very high even though it was calculated using their results in a course with a low scaled mean.

High scaled means for these courses indicate that the students are generally high achievers in all other courses.

A student taking a Category B VET course can still receive a high ATAR.

This all means that you shouldn’t choose courses based on what you believe are the likely effects of scaling on your ATAR. Your course choices should be based on your interests, demonstrated abilities and future career plans.

Studying courses that you are not good at or happy with may mean you won’t do your best or achieve good marks. Choosing courses you are good at and do well in will give you the best chance of maximising your ATAR.
Lots of students get HSC marks between 70 and 80, so their rankings are really spread out. Getting closer to 80 will make a big difference to your ATAR.

The ATAR in the ACT
The ATAR calculated in the ACT is directly comparable to the ATAR calculated in NSW and other states.

The ACT operates a system of school-based curriculum and assessment through the ACT Board of Senior Secondary Studies (BSSS). Each college determines the courses (and units) that they offer to students. There are no compulsory courses or units and no examinations set by a central authority for any subject.

If you're an ACT Year 12 student and want to apply for university, you must sit the ACT Scaling Test (AST). The AST is used to calculate your ATAR.

The calculation of the ATAR in the ACT is based on your best three major scaled course scores plus 0.6 of the next best scaled course score (major or minor). The scaled course scores are added to form an aggregate score. Students are then ranked based on their aggregate score, which is converted to an ATAR.

As your ATAR is calculated from your performance in the AST, if you drop a course it may not affect your ATAR directly. However, you need to take into account prerequisites for university courses outlined in this booklet.

If you are a college or school student in the ACT and you are thinking about studying at a UAC participating institution, you may need to check how your ACT Senior Secondary Certificate courses compare to NSW HSC courses.

Requirements for teaching
If you want to become a teacher in NSW schools, the NSW Education Standards Authority (NESA) requires you to:

- achieve a minimum of three HSC Band 5s, one of which must be in English
- achieve at least an HSC Band 4 in mathematics (for primary school teaching only)
- pass national literacy and numeracy tests before you graduate.

If you don't meet the HSC requirements set by NESA, you can talk to the university about other NESA-approved pathways to teaching.

For full details, check with the individual institutions.

International Baccalaureate
If you're an IB student, you won't receive an ATAR. Instead, when you apply through UAC, or any other university admissions centre in Australia, your IB score will be converted to a rank. This will allow you to be compared to applicants with an ATAR.

Go to uac.edu.au/ib to view:

- the IB score/UAC rank conversion table
- the IB courses that are equivalent to NSW HSC courses.
The following table shows indicative course comparisons for subjects commonly listed as prerequisites or assumed knowledge. For a full list of the most recent course-comparison information, visit the UAC website.

### ACT courses comparable to NSW HSC courses

<table>
<thead>
<tr>
<th>ACT course</th>
<th>NSW HSC course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology (Major)</td>
<td>Biology</td>
</tr>
<tr>
<td>Biological Science (Major)</td>
<td></td>
</tr>
<tr>
<td>Biological Studies (Major)</td>
<td></td>
</tr>
<tr>
<td>Chemistry (Major)</td>
<td>Chemistry</td>
</tr>
<tr>
<td>English (Major)</td>
<td>English Advanced</td>
</tr>
<tr>
<td>English (Major/Minor)</td>
<td>English Extension 1</td>
</tr>
<tr>
<td>English (Double Major)</td>
<td>English Extension 2</td>
</tr>
<tr>
<td>Mathematical Applications (Major)</td>
<td>Mathematics Standard 2</td>
</tr>
<tr>
<td>Mathematical Methods/Further Mathematics (Major)</td>
<td>Mathematics Advanced</td>
</tr>
<tr>
<td>Specialist Mathematics/Specialist Methods (Major)</td>
<td>Mathematics Extension 1</td>
</tr>
<tr>
<td>Specialist Mathematics/Specialist Methods (Major/Minor)</td>
<td>Mathematics Extension 2</td>
</tr>
<tr>
<td>Specialist Mathematics/Specialist Methods (Double Major)</td>
<td></td>
</tr>
<tr>
<td>Music (Major)</td>
<td>Music 2</td>
</tr>
<tr>
<td>Holistic Music</td>
<td></td>
</tr>
<tr>
<td>Music Studies (Major)</td>
<td></td>
</tr>
<tr>
<td>Music Performance (Major)</td>
<td></td>
</tr>
<tr>
<td>Physics (Major)</td>
<td>Physics</td>
</tr>
<tr>
<td>Astrophysics (Major)</td>
<td></td>
</tr>
<tr>
<td>Art Production (Major)</td>
<td>Visual Arts</td>
</tr>
<tr>
<td>Art and Design (Major)</td>
<td></td>
</tr>
<tr>
<td>Creative Art (Major)</td>
<td></td>
</tr>
<tr>
<td>Graphic Design (Major)</td>
<td></td>
</tr>
<tr>
<td>Visual Arts (Major)</td>
<td></td>
</tr>
</tbody>
</table>
Applying to uni

Every year, around 50,000 Year 12 students apply through UAC for admission to courses offered by UAC’s participating institutions. For the majority of courses there are more applicants than places, so applicants are ranked for selection.

For most courses, your selection rank is your ATAR, but an institution may increase your selection rank for certain courses in recognition of, for example, your performance in related HSC courses or equity considerations. Therefore, your selection rank may be higher than your ATAR for certain institutions or courses.

Admission criteria

In addition to the ATAR, many institutions specify other admission criteria for certain courses. For example, they might specify HSC course prerequisites for, say, maths-based degrees, or auditions for music-based degrees.

Prerequisites

For example, an advanced computing degree might specify Mathematics Advanced as a course prerequisite. If you haven’t studied Mathematics Advanced, you haven’t met this prerequisite and you won’t be considered for the course, regardless of your ATAR. Another course might specify Mathematics Advanced as a subject prerequisite. If you haven’t studied Mathematics Advanced, you can still be considered for the course but you won’t be able to study certain subjects within that course.

Non-academic criteria

For example, visual arts courses may ask you to supply a portfolio and this will contribute to your selection for the course. Music-based courses may require an audition and others may require you to attend an interview, write a personal statement or sit a test.

Assumed knowledge

Institutions can also indicate the HSC courses that they either assume you have studied before you start a particular university course, or suggest you study to prepare for your chosen university course. These are listed as:
- assumed knowledge
- recommended studies.

If you don’t have the assumed level of knowledge or haven’t completed the recommended studies you can still be selected for the course but you may have difficulty coping with your studies or just not be as prepared as other students.

When you’re choosing your Year 11 and 12 courses, use this booklet to find out if there are any admission criteria, assumed knowledge or recommended studies for the course you’re interested in. Then, when you apply for university at the end of Year 12, you’ll be able to meet any entry requirements to the course and have the foundations for success. There is more information about admission criteria on page 37.

How the lowest selection rank for a course is determined

The lowest selection rank required to be offered a place in a course is determined by three factors:

1. the number of places available in the course
2. the number of applicants for the course
3. the quality of those applicants.

These three factors mean that the lowest selection rank for a course can change from year to year and is not known until applicants are selected for that course each year.

The lowest selection rank does not represent the average ability of the students accepted for the course and does not reflect the difficulty or quality of the course.

Selection rank adjustments

Many applicants receive an offer to a course even though they have an ATAR below the published lowest selection rank. Often this is because other factors have been taken into consideration in combination with their ATAR and their selection rank for that course has been adjusted, making it higher than their ATAR.

These adjustments are due to factors such as:
- strong performance in HSC courses
- living or attending school in a certain area
- recognition of educational disadvantage.
Selection rank adjustments are applied differently from institution to institution and from course to course within the same institution. Visit each institution’s website for details.

It’s good to understand how your selection rank might be adjusted, but don’t be swayed into choosing certain courses based on this knowledge. By the time you apply for university, schemes may have changed and it’s more important to focus on doing well.

Educational Access Scheme
Most institutions that participate through UAC have a scheme for applicants who have experienced long-term educational disadvantage (due to circumstances beyond their control or choosing) which has seriously affected their educational performance. A long-term educational disadvantage usually means a disadvantage that has lasted for at least six months.

To have your educational disadvantage considered, you can apply for the Educational Access Scheme (EAS) through UAC. If an institution considers you eligible, it may increase your selection rank.

Keep an eye out for uni information evenings – they’ll help you navigate your HSC course selection.

Frequently asked questions
How many courses should I take in Years 11 and 12?
The number of courses you study depends on how many courses you can realistically manage and succeed in. Generally, courses are 2 units and to be eligible for the HSC you must successfully complete at least 12 units of study in Year 11 and at least 10 units in Year 12.

You must also study at least four subjects. Mathematics is a subject; within that subject there are a number of courses – Mathematics Standard 1, Mathematics Standard 2, Mathematics Advanced, Mathematics Extension 1 and Mathematics Extension 2.

Around 47% of HSC students do only 10 units in Year 12. The next most common pattern is 11 units (around 17%).

Is there anything I need to do if I change schools?
Not all schools offer the same HSC courses, so check that you’ll be able to continue with the courses you have already been studying.

Can I drop a course at the end of Year 11?
Yes, but before you drop an HSC course, ask yourself the following questions:
- Will you still be eligible for an ATAR?
- Is it a prerequisite for a university course you might want to study?
- Is it assumed knowledge for a university course you might want to study?

How do I know if the course I’m dropping is a prerequisite for a course or subject I’d like to study at uni?
There are a few places you can check course and subject prerequisites:
- the institution entries in Part 2 of this booklet
- the undergraduate course descriptions on UAC’s website
- institution websites.

Can I accelerate my HSC studies?
Yes, you can take a Year 12 course while in Year 11. The advantages of this can be:
- studying fewer courses in Year 12, meaning you can focus more on those units
- studying a broader range of subjects
- having extra units from which to draw your best 10 scaled marks for inclusion in your ATAR calculation.

However, accelerating your studies is no guarantee that you will improve your results.

If I complete an accelerated course in Year 11, who am I ranked with?
The course will be scaled in the year you complete it and contribute to your ATAR the following year.
How many units of maths can I do?
Up to 4 units of maths can be included in the ATAR calculation. If you study Mathematics Extension 1, it will have a different weighting (in terms of units) depending on whether you take Mathematics Advanced or Mathematics Extension 2.

If you study Mathematics Advanced (2 units), then Mathematics Extension 1 accounts for 1 unit.

If you study Mathematics Extension 2 (2 units), then Mathematics Extension 1 accounts for 2 units. This is calculated by doubling the mark received for the 1-unit course.

If you complete Mathematics Advanced and then go on to satisfactorily complete Mathematics Extension 1 and Mathematics Extension 2,
your results in Mathematics Advanced will not be included in the ATAR calculation, even if you excel in it.

Will I get a better ATAR if I do a lower level of maths?
Not necessarily. You might have a higher position in a lower level course, but this might be offset by a lower scaled mean for that course, and possibly a lower scaled mark for you.

Choose the level of maths that gives you the best foundation for further study. Also remember that institutions are more likely to adjust your selection rank in recognition of your performance in the higher level maths courses.
Can a Category B course completed in Year 11 be included in my ATAR calculation?
Yes. Any course completed in Year 11 will be available for inclusion in the ATAR calculation. Whether it is actually included will depend on whether it is among your best 8 scaled units (after English). English Studies, which is a Category B course, will always be included because 2 units of English must be used in the calculation of your ATAR.

Remember also that for a Category B course to be included in the ATAR calculation, the examination must be completed. Therefore, schools must ensure that students studying Category B courses are enrolled with NESA for the course and the exam.

Why do some courses scale better than others?
Courses have to be scaled so that marks in different courses can be compared with each other. Courses are scaled using the mean scores and distribution of marks, which indicate the ability of the students taking the course (not the perceived difficulty of the course). Courses such as Mathematics Extension 2 and Physics traditionally scale well because students who take these courses generally perform well in all their courses. The purpose of scaling is to rank students according to their overall achievement. Therefore, to get a high ATAR, students must achieve high HSC marks and high positions in all their courses.

Can I be disadvantaged by the school I attend?
No. The school you attend does not feature in the ATAR calculation. The ATAR calculation is based only on marks provided by NESA – no other information is used.

Can I be disadvantaged by where I live?
No. Where you live is not used in the ATAR calculation.

Can I get a better ATAR by studying more units?
No. You cannot assume that simply by studying more units your ATAR will be increased. While students who study more units tend to gain higher ATARs, there are a number of reasons why, such as each student’s interest, motivation, effort and time management.

Can I get a high ATAR studying courses such as Visual Arts, Business Studies and Hospitality?
Yes. It is possible to achieve a high ATAR regardless of courses studied. However, it is important to note that students who achieve very high ATARs are usually placed in the top group of students in all of their courses.

Can I get a higher ATAR by studying certain courses?
No. Your ATAR indicates your overall position; that is, how well you have performed compared to other students. It is a myth that choosing certain courses increases your ATAR. You can only maximise your ATAR by choosing courses you enjoy and do well in. Students who achieve high ATARs are generally placed near the top in all of their courses.

When is the ATAR released?
ATARs for NSW students are released in December each year on UAC’s website.

How do ACT students receive their ATAR?
In the ACT, the ATAR is calculated by the ACT Board of Senior Secondary Studies, in consultation with UAC, and released by ACT schools.

Your ATAR is a rank (not a mark) based on your **position** compared to other students in the state.

Your HSC mark for each course is based on your **performance** in your exam and assessments.
If a uni increases my selection rank, does this mean my ATAR increases?
No. Institutions will only adjust your selection rank for a particular course; your ATAR will not change.

What is meant by the ‘lowest selection rank’ for a course?
This is the lowest selection rank (combination of ATAR and adjustment factors) required to be offered a place in the course. It is not the lowest ATAR of an applicant who received an offer to the course.

The lowest selection ranks for courses in a particular year are only known after offers are made. Therefore, UAC publishes the previous year’s selection ranks as a guide to selection ranks for the coming year.

Does UAC have an ATAR calculator?
No. UAC only advises students of their official ATARs on ATAR release day in December each year. UAC does not endorse the use of ATAR calculators. ATAR calculators do not use current data so can only be a general indication of a student’s possible ATAR.

What happens if a course is repeated?
Courses can be repeated over a period of up to five years. A student is considered to be repeating an HSC course if they:
- repeat the same course
- study a different course in the same subject area, apart from an extension course.

If a student repeats a course, only the marks for the latest satisfactory attempt will be available for inclusion in the calculation of their ATAR, even if they are lower than the earlier attempt.
Step 1: Consider

Year 10 is a good time to start thinking about your future – not just what you’d like to do for the next two years, but what you’d like to do beyond that. Are you thinking of further study, getting a job or doing an apprenticeship? The following pages will help you consider your options.

Being unsure of what you want to do next is quite common. You may know that you would like to go on to further study but not be sure of the type of course you’d enjoy.

If you’re looking at a specific career path you may already know what university course you need to do. It’s important that you understand all the requirements for this course when you choose your Year 11 and 12 courses.

Maybe the thought of more years of study after school isn’t right for you just now. Perhaps you want to get straight into the workforce, or take up a traineeship or apprenticeship.
Fred and Laura

Fred and Laura are in Year 10. At the moment the end of school seems a long way away, but they have started to consider their futures. They’re not sure what they want to do after school but their parents and teachers are encouraging them to consider going on to further study after Year 12.

Fred goes to school in the city and enjoys hanging out with his friends. He’s inspired by sports players and is the captain of his local basketball team.

Laura goes to school in the country and grew up on her family’s farm. She loves it when her friends come to stay and they go horseriding, and she enjoys working with her dad and brother on local Landcare projects.

Fred also enjoys playing on his computer; he particularly likes a stock market game that he plays with his friends. Fred’s dad is in business for himself and he’s been helping Fred beat his mates. Fred also likes photography and a couple of his basketball photos have been in the local paper.

So far in high school Fred has done well in geography, history and commerce and he really likes these subjects, which makes it easy for him to stay focused.

Laura’s best marks are in science subjects and her teachers have encouraged her to continue with them in Years 11 and 12. She also really enjoys history and art classes.

Throughout this booklet we’ll use Fred and Laura’s story to show how you can navigate your way to university.

If you enter the workforce, consider how workplaces change over time and the importance of continuing to learn as your career develops. If you decide to come back to study in the future, there are other pathways to entry. Choosing courses at school that give you the broadest range of future options will make this easier for you later.

Think about your future, consider your abilities, investigate your options and make a plan.

You might want to start with the following questions.
Who inspires you?

When thinking about your future, a good place to start is by looking around at who and what inspires you.

This could be a person, such as a family member or friend, or someone prominent in public life.

Or it could be something you've seen or heard:
- a book, television show, movie or documentary
- a podcast or something you've seen online.

Think about why these people or things inspire you. Is it what they do, the way they relate to others, their community spirit, the story they tell or the message they give?

The things that inspire you can shape your future goals and dreams.

What do you like to do?

Think about the type of person you are and your interests.

Do you like:
- working outside
- helping others
- working with technology
- organising things
- talking to people
- finding out how things work
- being original and creative
- working on your own
- working with others?

When planning your future career, consider your natural inclinations and abilities. For example, you may not be happy and successful as a park ranger if you don’t enjoy the outdoors!

What are you good at?

Think about your academic skills and interests. What subjects are you good at? What do you enjoy studying? Often these are the same because you do well at subjects you enjoy and are interested in.

Investigate the types of jobs that use these subjects as key parts of what they do. For example, being good at geography could lead you to a job as a town planner, tour guide, cartographer or civil engineer. Being good at languages could lead you to a job as a customs officer, foreign affairs and trade officer, language teacher or translator, or you could work in an importing and exporting business.

Also consider what you’re good at outside school. What extracurricular activities do you do? If you’re good with pets, find out about jobs involving animals.

The table on pages 27–34 will help link your interests to possible careers and subject choices.

There are lots of ways to reach your goal, so also think about your Plan B.

Who can you talk to?

Talk to those around you about your options for the future. They may have some good suggestions and new ideas.
- Talk with your parents and family about their career choices.
- Organise your own work experience – volunteer to work somewhere for a week to see if you enjoy it.
- Get a part-time job – it will give you a taste of what it’s like to be in the workforce.
- Visit careers expos and uni open days.
- Use the undergraduate course search on UAC’s website, where you only need a keyword, like ‘music’ or ‘chemistry’, to search more than 2,000 university or college courses.
- Contact the institutions you’re interested in and talk to them about your options. You can start by looking at their websites.

Many universities and colleges have school visit days so you can attend the campus, talk to lecturers and students, and get a feel for what it would be like to study there. Ask your teacher about these days or attend a public open day with your parents or friends. Check the dates and locations at uac.edu.au/open-days.

Brainstorming

Now that you’ve considered the questions in this section, use the worksheets that follow to organise your ideas and discover the areas of study that would suit you best. This will help you work out the courses that will help you achieve your goals. Fred and Laura did this exercise and the results are shown on the facing page.
Fred and Laura

Fred and Laura's teachers have told them it's time to choose their subjects for Years 11 and 12, so they're exploring their options by doing some research.

Fred is keen to take his interest in sport further. His father has suggested he also look at business-related careers and his school careers adviser has suggested social sciences because his best marks are in these areas.

The table ‘What are my options?’ on pages 27-34 shows some options for Fred. Looking down the left column, which lists various interests, qualities and skills, there are several areas that could suit him. Fred is drawn to the following areas:

**Human Movement and Sport Sciences**
Fred is interested in – and good at – sport and fitness. If his skills include being a good communicator, leader and motivator, and he's patient and enthusiastic, the second column shows that he could be a sport scientist, sports coach or trainer.

The third column shows that for these careers he could study sports coaching, sports management, anatomy and physiology or psychology. The table also shows which institutions offer these courses.

The most relevant subjects for him to study for the HSC are shown in the fourth column: Biology, Chemistry, Mathematics Advanced, Personal Development, Health and Physical Education (PDHPE), Physics and Modern History.

**Business, Commerce, Economics, Marketing and Management**
Fred is interested in the stock market and business. His skills include being organised and independent, and he's good at leading, solving problems and critical thinking. Therefore, he could be a stockbroker, business analyst, accountant, banker or economist.

For these careers he could study banking, e-commerce or financial advising.

In addition to English and Mathematics Advanced, he would be wise to include any of Business Studies, Economics, Society and Culture, Business Services (Cat. B course), Human Services (Cat. B) or Retail Services (Cat. B) in his HSC courses. However, to be eligible for an ATAR he can only include 2 units of Category B courses.

Laura's school took her class to an open day at the local university and she has spoken to her family about her ideas. Her teachers think she should develop her strengths in science-related subjects but she's also keen on looking at careers in art-related areas.

The table ‘What are my options?’ on pages 27-34 shows some options for Laura in the following areas:

**Earth and Environmental Sciences**
Laura is interested in the environment, nature and animals, and being outdoors. Her skills include being observant and resourceful, and she's good at design, science, working outdoors, critical thinking and solving problems. The second column shows that these interests and skills are useful to an environmental scientist, a conservationist, a forestry worker, an environmental officer, and an environmental or urban planner.

The third column shows that for these careers she could study climate change, conservation studies, environmental management or sustainability. The table also shows which institutions offer these courses.

The fourth column shows that the relevant HSC subjects she could study are Biology, Chemistry, Design and Technology, Earth and Environmental Science, Mathematics Advanced, Physics and Society and Culture.

**Creative and Performing Arts**
Laura's skills include being creative, imaginative, organised and an independent worker, and she's good at drawing, art, making things, writing and solving problems. She could be an artist, animator or photographer, or she could use these professions as a stepping stone to becoming an art teacher.

For these careers, she could study animation, fine arts, graphic design, illustration, photography or visual arts.

In addition to English, for her HSC she could study Design and Technology, Software Design and Development, Textiles and Design, Visual Arts or Entertainment Industry (Cat. B).

From their research it's clear that there are many exciting options for Fred and Laura's futures.
Worksheet 1

The first step is to think about who you are: your interests, qualities and skills. Write these in the boxes below.

Then turn to the table ‘What are my options?’ on pages 27–34 and match your interests, qualities and skills with those in the left-hand column of the table. These are divided into study areas and you may find you match one particular area of study, or several.

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</tbody>
</table>
Worksheet 2

The next step is to use the 'What are my options?' table on pages 27–34 to match your answers in Worksheet 1 with areas of study. Work your way across the sheet below, filling in each column from the information in the table.

In the final column you will end up with a list of subjects that best match your abilities and future plans.

<table>
<thead>
<tr>
<th>Areas of study that match my interests, qualities and skills</th>
<th>What careers use those skills?</th>
<th>What tertiary courses could I study?</th>
<th>What HSC courses could I choose?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interests</td>
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<td>Qualities</td>
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<td>Skills</td>
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</tbody>
</table>

Course Compass draws on the experience of over 100,000 recent UAC applicants to show you the paths taken by students just like you.

Try Course Compass at
uac.edu.au/coursecompass
Now that you’re thinking about your interests, qualities and skills, it’s time to explore the careers these could lead to, the courses you could study at uni and the HSC courses you could choose to begin your journey.

Step 2: Explore
What are my options?

Using the worksheets on pages 24–25, the following table will help you map your interests, qualities and skills to careers, areas of university study and HSC courses. Category B courses are identified as (Cat. B).

These lists are not meant to be exhaustive; they are only a summary of what’s available. A full list of university courses available each year is published on UAC’s website.

<table>
<thead>
<tr>
<th>Key to institution names</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACAP</td>
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<tr>
<td>ACPE</td>
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<tr>
<td>ACU</td>
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<tr>
<td>ANU</td>
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<tr>
<td>CQU</td>
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<tr>
<td>CDU</td>
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<tr>
<td>CSU</td>
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<tr>
<td>GU</td>
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<td>ICMS</td>
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<td>LTU</td>
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<td>UNSW</td>
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<td>UNSW-ADFA</td>
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<td>USYD</td>
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<tr>
<td>UTS</td>
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<tr>
<td>WS</td>
</tr>
</tbody>
</table>
### My interests, qualities and skills

<table>
<thead>
<tr>
<th>Agriculture, Rural Studies and Animal Science</th>
<th>My interests</th>
<th>My qualities</th>
<th>My skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>I'm interested in ... the land, the environment, crop growing, farming, plants, animal health/welfare, horse training</td>
<td>I'm observant, confident with animals, organised, good with detail, patient</td>
<td>I'm ... observant, confident with animals, organised, good with detail, patient</td>
<td>I'm ... good at ... making things, planning, problem solving, maths, technical drawing, manual work, working with animals</td>
</tr>
<tr>
<td>I could be an ... animal handler, animal welfare officer, conservation manager, farmer, grazier, horticulturist, land manager, produce manager, stud manager/trainer, veterinarian, winemaker, wool classer</td>
<td>I could study ... agribusiness, agricultural science, animal production science, crop production, cyber security, equine science and horse management, farm and land management, horticulture, plant pathology, post-harvest technology, regenerative agriculture, veterinary science/technology, viticulture and wine science, wool science, zoology</td>
<td></td>
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</tr>
<tr>
<td>I could study ... agribusiness, agricultural science, animal production science, crop production, cyber security, equine science and horse management, farm and land management, horticulture, plant pathology, post-harvest technology, regenerative agriculture, veterinary science/technology, viticulture and wine science, wool science, zoology</td>
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</tr>
</tbody>
</table>

### University courses I could study

<table>
<thead>
<tr>
<th>Architecture, Building, Design and Planning</th>
<th>My interests</th>
<th>My qualities</th>
<th>My skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>I'm interested in ... how things work, cityscapes, buildings, building design, architecture, gardens, landscapes</td>
<td>I'm ... artistic, imaginative, organised, good with detail, creative, orderly, conscientious</td>
<td>I'm ... good at ... making things, coming up with original ideas, drawing, designing, solving problems</td>
<td></td>
</tr>
<tr>
<td>I could be an ... architect, building manager, construction manager, environmental planner, estimator, industrial designer, interior designer, landscape architect, property valuer, surveyor</td>
<td>I could study ... architecture, construction economics, construction/project management, construction technology, fashion design, industrial design, interior design, landscape architecture, property management, quantity surveying</td>
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<tr>
<td>I could study ... architecture, construction economics, construction/project management, construction technology, fashion design, industrial design, interior design, landscape architecture, property management, quantity surveying</td>
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</tbody>
</table>

### Careers that use my interests, qualities and skills

<table>
<thead>
<tr>
<th>Architecture, Building, Design and Planning</th>
<th>Careers</th>
</tr>
</thead>
<tbody>
<tr>
<td>I could be an ... architect, building manager, construction manager, environmental planner, estimator, industrial designer, interior designer, landscape architect, property valuer, surveyor</td>
<td></td>
</tr>
<tr>
<td>I could study ... architecture, construction economics, construction/project management, construction technology, fashion design, industrial design, interior design, landscape architecture, property management, quantity surveying</td>
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</tbody>
</table>

### University courses I could study

<table>
<thead>
<tr>
<th>HSC courses I could choose</th>
</tr>
</thead>
<tbody>
<tr>
<td>... and I could choose these HSC courses ... Architecture, Biology, Chemistry, Earth and Environmental Science, Geography, Investigating Science, Mathematics Advanced, Physics, Primary Industries (Cat. B)</td>
</tr>
</tbody>
</table>

### Where can I study?

- Agriculture, Rural Studies and Animal Science
  - CQU, CSU, LTU, SCU, UNE, USYD, WS

- Architecture, Building, Design and Planning
  - CDU, CQU, GU, ICMS, MQ, SCU, TUA, UC, UNE, UNSW, UON, UOW, USYD, UTS, WS

Let's Chat on UAC Digital uac.edu.au/uacdigital

Webinars for students, parents and careers advisers

UAC
### Step 2: Explore My interests, qualities and skills

<table>
<thead>
<tr>
<th>My interests, qualities and skills</th>
<th>Careers that use my interests, qualities and skills</th>
<th>University courses I could study</th>
<th>HSC courses I could choose</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Arts and Humanities</strong></td>
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<tr>
<td><em>I'm interested in...</em> current affairs, social issues, politics, world events, languages, writing and literature, religions and cultures, history*</td>
<td><em>I could be an...</em> analyst, anthropologist, archaeologist, archivist, foreign affairs officer, gallery curator, government policy officer, historian, journalist, language specialist, marketing manager, media officer, producer, researcher, social researcher, translator or interpreter</td>
<td><em>I could study...</em> Aboriginal studies, archaeology, Asian studies, cinema studies, communications, English, international studies, languages, linguistics, literature, media, modern/ancient history, philosophy, political science, psychology, publishing, religious studies, social science, sociology, theology, women's studies</td>
<td><em>... and I could choose these HSC courses...</em> Aboriginal Studies, English Advanced, Geography, History, languages, Religion, Society and Culture, Textiles and Design, Visual Arts</td>
</tr>
<tr>
<td><em>I'm...</em> artistic, creative, adventurous, conscientious, efficient, industrious, resourceful, imaginative</td>
<td><em>... and I'm good at...</em> creative writing, debating, languages, solving problems, thinking critically, using technology</td>
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<tr>
<td><em>I could study...</em> Aboriginal studies, archaeology, Asian studies, cinema studies, communications, English, international studies, languages, linguistics, literature, media, modern/ancient history, philosophy, political science, psychology, publishing, religious studies, social science, sociology, theology, women's studies</td>
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<tr>
<td>Where can I study?</td>
<td>ACAP, ACU, ANU, CDU, CQU, CSU, GU, LTU, MC, MQ, SAE, SCU, SIBT, TUA, UC, UNDA, UNE, UNSW, UNSW-ADFA, UON, UOW, USYD, UTS, WS</td>
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<tr>
<td><strong>Business, Commerce, Economics, Marketing and Management</strong></td>
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<tr>
<td><em>I'm interested in...</em> politics, economics, business, international affairs, current affairs, finance and banking, statistics, accounting</td>
<td><em>I could be an...</em> accountant, auditor, banker, business adviser, business analyst, business consultant, economist, entrepreneur, financial analyst, financial planner, human resources manager, marketing specialist, project manager, stockbroker</td>
<td><em>I could study...</em> accounting, actuarial studies, agribusiness, banking, business, e-commerce, entrepreneurship, financial advising, human resource management, industrial relations, international relations, management, marketing, property economics, statistics</td>
<td><em>... and I could choose these HSC courses...</em> Business Studies, Economics, English Advanced, languages, Mathematics Advanced, Society and Culture, Business Services (Cat. B), Human Services (Cat. B), Retail Services (Cat. B)</td>
</tr>
<tr>
<td><em>I'm...</em> good with money, ethical, organised, persuasive, independent, outgoing</td>
<td><em>... and I'm good at...</em> leadership, mathematics, solving problems, showing initiative, critical thinking, logical thinking, negotiating</td>
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<tr>
<td>Where can I study?</td>
<td>ACU, AMC, ANU, CDU, CQU, CSU, GU, ICMS, LTU, MC, MIT, MQ, SCU, SIBT, TUA, UC, UNDA, UNE, UNSW, UNSW-ADFA, UON, UOW, USYD, UTS, WS</td>
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<tr>
<td><strong>Communications and Media Studies</strong></td>
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<tr>
<td><em>I'm interested in...</em> current affairs, literature, popular culture, social media, world events, politics</td>
<td><em>I could be an...</em> advertising account manager, commentator, editor, filmmaker, journalist, marketing manager, media officer, multimedia designer, presenter, producer, public relations manager</td>
<td><em>I could study...</em> advertising, creative industries, film, information management, journalism, linguistics, multimedia, photography, production, radio, television, video, writing</td>
<td><em>... and I could choose these HSC courses...</em> English Advanced (or higher), History, Society and Culture, Visual Arts, Entertainment Industry (Cat. B)</td>
</tr>
<tr>
<td><em>I'm...</em> a good communicator, organised, imaginative, persuasive, creative, resourceful, an independent worker</td>
<td><em>... and I'm good at...</em> writing, public speaking, debating, thinking creatively, motivating people, analytical thinking, using initiative</td>
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<tr>
<td>Where can I study?</td>
<td>ACU, ANU, CDU, CQU, CSU, GU, ICMS, LTU, MC, MQ, SAE, SCU, SIBT, TUA, UC, UNDA, UNE, UNSW, UON, UOW, USYD, UTS, WS</td>
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<tr>
<td>My interests, qualities and skills</td>
<td>Careers that use my interests, qualities and skills</td>
<td>University courses I could study</td>
<td>HSC courses I could choose</td>
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</table>
| **Creative and Performing Arts**  | *I'm interested in* ... theatre, fashion, popular culture, music, photography, drawing, painting, graphic design, creating things, research *I'm* ... creative, good with detail, imaginative, organised, a good communicator, an independent worker, outgoing ... and *I'm good at* ... dancing, acting, performing, making things, playing an instrument, writing, photography, working things (technical skills), solving problems, using initiative, writing

*I could be an* ... animator, artist, cartoonist, composer, fashion designer, film director, graphic designer, illustrator, journalist, multimedia designer, musician, photographer, producer, songwriter, teacher, writer

*I could study* ... animation, creative industries, creative writing, fashion, fine arts, graphic design, illustration, journalism, music, photography, theatre studies, visual arts

... and *I could choose these HSC courses* ... English Advanced (or higher), Dance, Design and Technology, Drama, Music, Software Design and Development, Textiles and Design, Visual Arts, Entertainment Industry (Cat. B)

| Where can I study? | ACU, ACPE, ANU, CDU, CQU, CSU, GU, MC, MQ, NAS, SAE, SCU, TUA, UC, UNE, UNSW, UON, UOW, USYD, UTS, WS |

| **Earth and Environmental Sciences** | *I'm interested in* ... being outdoors, the environment, nature, oceans, marine life, volcanoes, weather, waterways, scuba diving, animals, bushwalking, science *I'm* ... good with detail, organised, observant, resourceful ... and *I'm good at* ... mathematics, design, science, working alone, working outdoors, critical thinking, solving problems

*I could be a* ... conservationist, environmental officer, environmental planner, environmental scientist, fisheries manager, food and drug safety officer, forestry worker, marine conservation officer, resource manager, urban planner

*I could study* ... climate change, conservation studies, environmental rehabilitation studies, food sustainability, forestry, forest science, geography (human and physical), geology, geophysics, marine resource and environmental management, regenerative agriculture, spatial science, sustainability

... and *I could choose these HSC courses* ... Biology, Chemistry, Design and Technology, Earth and Environmental Science, English Advanced, Mathematics Advanced, Physics, Investigating Science, Society and Culture

| Where can I study? | ACU, AMC, ANU, CDU, CQU, CSU, GU, MQ, SCU, UC, UNE, UNSW, UON, UOW, USYD, UTS, WS |

| **Education and Teaching** | *I'm interested in* ... helping others, being outdoors, social equality, teaching and learning, school, children *I'm* ... active, a good communicator, patient, creative, organised, outgoing ... and *I'm good at* ... time management, leadership, English, maths, planning, presentation, thinking critically

*I could be a* ... community educator, corporate trainer, early childhood teacher, primary teacher, secondary teacher

*I could study* ... adult education, community education, early childhood teaching, human resource development, outdoor education, organisational learning, primary teaching, secondary teaching (specialising in a curriculum area)

... and *I could choose these HSC courses* ... Biology, Chemistry, English Advanced, Design and Technology, Geography, History, languages, Investigating Science, Mathematics Advanced, Personal Development, Health and Physical Education (PDHPE), Physics, Society and Culture

| Where can I study? | ACU, ACPE, CDU, CSU, GU, LTU, MQ, SCU, TUA, UC, UNDA, UNE, UNSW, UON, UOW, USYD, UTS, WS |
### Engineering

**I'm interested in ...** maths, science, construction, electronics, computers, programming, mechanics, how things work, robotics

**I'm ...** organised, creative, good with detail, technically minded, patient, persistent, resourceful, analytical

**... and I'm good at ...** drawing, planning, computing, leadership, designing, solving problems

**I could be a ...** chemical or materials engineer, civil engineer, construction manager, electrical engineer, industrial engineer, manufacturer, mechanical engineer, medical engineer, production engineer

**I could study ...** engineering (eg civil, computer, construction, electrical, environmental, mechanical, mechatronic, medical, telecommunications), coastal systems, construction project management, gaming, robotics, science, surveying

**Where can I study?** AMC, ANU, CDU, CQU, CSU, GU, LTU, MQ, SAE, SCU, SIBT, UC, UNSW, UNSW-ADFA, UON, UOW, USYD, UTS, WS

### Health Sciences

**I'm interested in ...** health, nutrition, food, how the body works, people, science, alternative medicines, helping others

**I'm ...** compassionate, curious, dependable, patient, a good communicator, critical thinker, organised, observant, open minded, good with people

**... and I'm good at ...** leadership, fine motor skills, solving problems, working with others, time management, listening, thinking critically, motivating people

**I could be an ...** ambulance officer, audiologist, beauty therapist, chiroprapist, chiropodist, community health worker, data scientist, dentist, dietitian, doctor, medical scientist, nurse, nutritionist, occupational therapist, oral health therapist, paramedic, pharmacist, physiotherapist, planning and policy officer, pedorthist, podiatrist, radiographer, researcher (eg food, health, medical), speech therapist, sonographer

**I could study ...** beauty therapy, biomedical sciences, Chinese medicine, chiropractic science, clinical science, cognitive and brain science, dental science, digital health and analytics, global health, medical imaging, medical laboratory science, naturopathy, nuclear medicine, nutrition and dietetics, occupational therapy, oral health, osteopathy, podiatry, paramedicine, physiotherapy, pharmacology, podiatry, radiography, speech therapy

**Where can I study?** ACAP, ACPE, ACU, ANU, CDU, CQU, CSU, GU, LTU, MQ, SCU, TUA, UC, UNE, UNSW, UON, UOW, USYD, UTS, WS

### Human Movement and Sport Sciences

**I'm interested in ...** sport, coaching, fitness and exercise, how the body works, nutrition, biology, health, helping others, being outdoors

**I'm ...** a good communicator, patient, observant, organised, enthusiastic, supportive, persuasive, fit and healthy, confident, outgoing

**... and I'm good at ...** sports, public speaking, leadership, motivating others, fine motor skills, solving problems, teaching others, science

**I could be a ...** disease prevention educator, exercise scientist, fitness counsellor, fitness trainer, exercise rehabilitation worker, exercise physiologist, medical researcher, medical scientist, occupational therapist, personal trainer, physiotherapist, sport scientist, sports coach, sports marketer, teacher

**I could study ...** anatomy and physiology, exercise physiology, exercise science, physiotherapy, psychology, sports coaching, sports journalism, sports management, sports psychology

**Where can I study?** ACU, ACPE, ANU, CDU, CQU, CSU, GU, LTU, ICMS, MQ, SCU, TUA, UC, UNE, UNSW, UON, UOW, USYD, UTS, WS

**... and I could choose these HSC courses ...** Biology, Chemistry, English Advanced, Investigating Science, Mathematics Advanced, Personal Development, Health and Physical Education (PDHPE), Physics
### My interests, qualities and skills

#### Careers that use my interests, qualities and skills

#### University courses I could study

#### HSC courses I could choose

<table>
<thead>
<tr>
<th>My interests, qualities and skills</th>
<th>Careers that use my interests, qualities and skills</th>
<th>University courses I could study</th>
<th>HSC courses I could choose</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Information Technology and Information Systems</strong></td>
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</tr>
<tr>
<td><em>I'm interested in</em> ... computers, internet, web technologies, social media, electronics, programming, designing</td>
<td><em>I could be a</em> ... computer programmer, digital media producer, game designer, graphic designer, filmmaker, illustrator, IT consultant, photographer, software developer, systems analyst, visual effects artist, web designer</td>
<td><em>I could study</em> ... computer science, computing, cyber security, data science, digital business, electronics, information systems, information technology, programming, software engineering</td>
<td>... and I could choose these HSC courses ... Business Studies, Design and Technology, English Advanced, Information and Digital Technology (Cat. B), Information Processes and Technology, Mathematics Advanced, Software Design and Development</td>
</tr>
</tbody>
</table>

#### Where can I study? ACU, ANU, CDU, CQU, CSU, GU, LTU, MIT, MQ, SAE, SCU, SIBT, UC, UNE, UNSW, UNSW-ADFA, UON, UOW, USYD, UTS, WS

| **Law** | | | |
| *I'm interested in* ... research, justice, fairness, equality, current affairs, politics, helping others | *I could be a* ... barrister, judge, legal adviser, legal officer, legal researcher, magistrate, police officer, politician, solicitor | *I could study* ... conveyancing, justice studies, law, legal studies, paralegal studies, political studies | ... and I could choose these HSC courses ... Business Studies, Economics, English Advanced (or higher), Legal Studies, Society and Culture |

#### Where can I study? ACU, ANU, CDU, CQU, CSU, GU, LTU, MQ, SCU, UC, UNDA, UNE, UNSW, UON, UOW, USYD, UTS, WS

| **Medical Sciences and Medicine** | | | |
| *I'm interested in* ... the environment, health, nutrition, how the body works, people, science, alternative medicines, helping others, research, experimenting | *I could be a* ... biochemist, biomedical engineer, chiropractor, doctor, forensic officer, genetic counsellor, laboratory technician, medical engineer, medical researcher, pathologist, pharmacist, radiologist, sonographer | *I could study* ... biomedical sciences, forensic science, health sciences, medicine, medical engineering, nanotechnology, optometry, paramedicine, pharmacy, physiotherapy | ... and I could choose these HSC courses ... Biology, Chemistry, Community and Family Services, English Advanced, Mathematics Advanced, Physics, Investigating Science |

#### Where can I study? ACU, ANU, CDU, CQU, CSU, GU, LTU, MQ, SCU, UC, UNE, UNSW, UON, UOW, USYD, UTS, WS
### Nursing and Midwifery

**I'm interested in...** health care, helping others, how the body works, people, science, mothers and babies, childbirth  

**I'm...** compassionate, curious, creative, a good communicator, dependable, observant, good with detail, responsible, tolerant, patient, organised, resourceful  

**...and I'm good at...** using initiative, teamwork, working with others, listening, solving problems, critical thinking, leadership

**I could be an...** aged care nurse, community health nurse, critical care nurse, disability care nurse, emergency nurse, health administrator, Indigenous health nurse, intensive care nurse, mental health nurse, midwife, nurse, nurse educator, occupational health nurse, paediatric nurse, pharmaceutical sales rep, social and health policy officer, surgical nurse

**I could study...** aged care, behavioural and social sciences, child and family health, health sciences, Indigenous culture, maternal and child care, mental health, midwifery, nursing (community, high-dependency, perioperative), palliative care, paediatrics, primary health care, medical/surgical nursing, rehabilitation

**...and I could choose these HSC courses...** Biology, Chemistry, Community and Family Services, English Advanced, Investigating Science, Mathematics Advanced

**Where can I study?** ACU, CDU*, CQU, CSU, GU, LTU, SCU*, TUA, UC*, UNDA, UNE, UON*, UOW, USYD, UTS*, WS*

*offers midwifery

### Science, Applied Science and Technology

**I'm interested in...** chemistry, science, the environment, weather patterns, people and communities, marine life, space, astronomy, planes, research, computers, experimenting, animals, nature, farming, psychology, the brain  

**I'm...** curious, organised, creative, good with detail, observant, resourceful  

**...and I'm good at...** solving problems, critical thinking, leadership, mathematics, logical thinking, chemistry, biology

**I could be an...** aviation engineer, data analyst, field researcher, geologist, laboratory technician, medical advocate, medical marketer, researcher, sports psychologist, urban planner, vet, zookeeper

**I could study...** agricultural science, applied studies, aviation science, biological science, chemistry, cognitive and brain science, environmental science, equine science, food science or technology, forensics, horticulture, forest science, marine science, mathematics, medical science, nanotechnology, neuroscience, physics, psychology, statistics, technology, veterinary science, zoology

**...and I could choose these HSC courses...** Biology, Chemistry, English Advanced, Mathematics Advanced, Physics, Investigating Science

**Where can I study?** ACAP, ACU, AMC, ANU, CDU, CQU, CSU, GU, LTU, MQ, SCU, TUA, UC, UNE, UNSW, UNSW-ADFA, UON, UOW, USYD, UTS, WS
### My interests, qualities and skills

#### Tourism, Hospitality and Event Management

- **I'm interested in** ... travel, people and cultures, world events, languages, helping others, being outdoors, being active
- **I'm** ... organised, good with detail, a good communicator, confident, patient, persistent, sincere, friendly, flexible, punctual

<table>
<thead>
<tr>
<th>I could be a ...</th>
<th>I could study ...</th>
<th>I could choose these HSC courses ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>environmental planner, event manager, hotel manager, resort manager, restaurateur, travel consultant, tour operator</td>
<td>event management, hotel management, leisure studies, recreational management and planning, sport management, tourism management</td>
<td>Economics, English Advanced, Languages, Mathematics Advanced, Society and Culture, Hospitality (Cat. B), Tourism, Travel and Events (Cat. B)</td>
</tr>
</tbody>
</table>

**Where can I study?**

ACU, CDU, CSU, GU, LTU, ICMS, MC, SCU, SIBT, TUA, UC, UON, UOW, UTS, WS

### Social Work and Welfare

- **I'm interested in** ... people and cultures, health, social responsibility, fairness, helping others
- **I'm** ... organised, caring, a good communicator, curious, resourceful, fair, helpful

<table>
<thead>
<tr>
<th>I could be an ...</th>
<th>I could study ...</th>
<th>I could choose these HSC courses ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>aged care worker, child protection officer, community care officer, counsellor, disability officer, migrant welfare officer, social worker, welfare support officer, welfare worker, youth worker</td>
<td>ageing, children and young people, health and disability, Indigenous studies, social policy, social research, sociology, research skills, youth work</td>
<td>Community and Family Studies, Economics, English Advanced, Mathematics Advanced, Society and Culture</td>
</tr>
</tbody>
</table>

**Where can I study?**

ACAP, ACU, ANU, CDU, CQU, CSU, GU, LTU, MQ, SCU, SIBT, UC, UNE, UNSW, UON, UOW, USYD, UT, WS

### Social Sciences

- **I'm interested in** ... people and communities, world events, current affairs, politics, health, social responsibility, immigration, policing, justice, fairness, working with people, helping others
- **I'm** ... organised, a good communicator, curious, resourceful, fair, helpful

<table>
<thead>
<tr>
<th>I could be a ...</th>
<th>I could study ...</th>
<th>I could choose these HSC courses ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>community care officer, legal practitioner, occupational therapist, social worker, vocational guidance counsellor, welfare support officer, welfare worker</td>
<td>behavioural science, commerce, criminology, geography, neuroscience, policing, policy studies, psychology, social ecology, sociology</td>
<td>Community and Family Studies, Economics, English Advanced, Geography, Legal Studies, Mathematics Advanced, Modern History, Society and Culture</td>
</tr>
</tbody>
</table>

**Where can I study?**

ACAP, ACU, ANU, CDU, CQU, CSU, GU, LTU, MQ, SCU, SIBT, UC, UNE, UNSW, UON, UOW, USYD, UT, WS
Step 3: Decide

In the previous section you explored how your interests, qualities and skills may lead to certain careers and uni courses. Now it’s time to decide on your HSC courses.

HSC subjects and courses

At this stage, don’t focus on the ATAR you need for entry to a specific course as this could change once you are ready to apply. Think more about the courses or subject areas you are interested in and what will work best to help you get there. Open your mind to the multitude of possibilities.

This booklet discusses both HSC subjects and HSC courses. A subject is the general name given to an area of study. A course is a branch of study within a subject. A subject may have several courses. For example, the subject of English has the courses of English as an Additional Language or Dialect, English Studies (Cat. B), English Standard, English Advanced, English Extension 1 and English Extension 2. HSC subjects and HSC courses are listed in the table on pages 44–45.
Step 3: Decide

If you want to study at uni but don’t have a particular degree in mind, choose HSC courses that make you eligible for an ATAR but also give you flexibility. For example, if you like both science and history you could pick from the science and history subjects in Years 11 and 12 (eg Biology, Chemistry, Physics, Investigating Science, Ancient History and Modern History). You would then be prepared for further study in either subject. Keep your options open so that when you are more sure about what you want to do, you’re already on the way to getting there.

If you’re sure you don’t want to go to university then your choice of courses for Years 11 and 12 will not be based on ATAR eligibility. But you may change your mind in the next couple of years, so it could still be a good idea to choose courses that make you eligible for an ATAR.

Admission criteria

Some university courses require you to have studied certain HSC courses, or their equivalent, or to have achieved a specific standard before you’ll be offered a place in the course.
Fred and Laura

With his main areas of interest being sport and business, Fred has looked at a couple of courses in these areas at some of the universities in his city and checked to see if there are prerequisites, assumed knowledge, recommended studies or any additional selection criteria. Fred has found that if he were to apply for a degree in sport or exercise management he would need to have Mathematics Advanced and any 2 units of English as assumed knowledge. Luckily, he has chosen Mathematics Advanced, and English is on his list because it’s compulsory.

Laura has checked with the institution in her area about a degree in agriculture. It advises Biology and/or Chemistry as recommended studies with Mathematics Advanced as assumed knowledge. Laura has chosen both Biology and Mathematics Advanced so she is well prepared if she goes on to study this course.

If you’re sure about what you want to study at uni, check you can answer the following questions about your course:
− Are there any prerequisites?
− Is there any assumed knowledge?
− Are there recommended studies?
− Are there any additional selection criteria?

These requirements can be found in the institution entries in Part 2 of this booklet. Part 2 is divided into main areas of study at each institution, so it’s a good idea to check a couple of different institutions you’re interested in for their requirements. Institutions can describe their admission criteria in different ways because they have different policies.

English Standard and Mathematics Standard 2 are the most popular HSC courses.

Choosing courses

There are many different types of HSC courses, but only Category A and B courses can be included in the calculation of your ATAR. All HSC courses are listed in the table on pages 44–45.

Category A courses

This is a general guide to HSC Category A subjects and courses accepted by institutions in NSW and the ACT for entrance purposes. Always check with the relevant institution to confirm the information.

English

In NSW, studying English is compulsory and 2 units of English must be included in the calculation of your ATAR. In addition, some institutions require English as a subject prerequisite or course prerequisite. If you are considering studying English at university, English Advanced or English Extension 1 is usually recommended.

Agriculture, Biology, Chemistry, Earth and Environmental Science, Engineering Studies, Investigating Science, Physics, Science Extension

If you wish to study a university course based on science – for example, agriculture, engineering, natural resources, computing, medical or rural science – you are advised to study as much science and mathematics as you can at school. You can do this by taking as many science-based courses as you are able to handle within the HSC rules.

Mathematics

A knowledge of mathematics is desirable for some university courses. It is also recommended, along with physics, for all degree courses requiring a study of physics.
Ideally you should select either Mathematics Extension 1 or Mathematics Extension 2 if you wish to continue studying mathematics, mathematical statistics, actuarial studies or computer science beyond your first year at uni. These courses are the best preparation for the study of all branches of engineering and physics after the first year.

Mathematics Advanced (not Mathematics Standard 2) is recommended by most institutions as the minimum requirement for further study in a variety of subjects, including architecture, agricultural economics, biological sciences, business, chemistry, commerce, economics, geology, psychology, social sciences, statistics, and urban and regional planning.

**Mathematics Extension 1** – the unit value of this course changes depending on whether the course is taken in combination with Mathematics Advanced or Mathematics Extension 2, as follows:
- Mathematics Advanced (2 units) + Mathematics Extension 1 (1 unit)
- Mathematics Extension 1 (2 units) + Mathematics Extension 2 (2 units).

**Languages (other than English)**
Most institutions offer courses in languages for first-year students who have no previous knowledge of the particular language.

If you are considering further study in a language, however, including the language in your HSC program is to your advantage. This may be essential if you intend to proceed to fourth-year honours in that language.

Also ask the relevant institution whether specific requirements have been set for the study of a language.

HSC Beginners courses are accepted by all institutions for entrance purposes but are not recommended as preparation for study in that subject.

**Ancient History, Economics, Geography, Modern History**
Any of these HSC courses may be included in your HSC program to satisfy university entrance criteria. At university, however, they are taught on the assumption that students have not studied them previously.

**Music**
Music can be included in your HSC program by studying Music 1, Music 2 or Music Extension. If you are considering further study in music, find out the minimum entry standard required. Some courses require an audition.

**Visual Arts**
If you are considering further study in visual arts, find out the minimum entry standard required. Most courses require presentation of a portfolio of work. This is indicated under additional selection criteria in the areas of study for the institution.

**Aboriginal Studies; Business Studies; Community and Family Studies; Dance; Design and Technology; Drama; Food Technology; Industrial Technology; Information Processes and Technology; Legal Studies; Personal Development, Health and Physical Education (PDHPE); Society and Culture; Software Design and Development; Studies of Religion; Textiles and Design**
These HSC courses are accepted by all institutions for entrance purposes.

**Category B courses**
Remember that only the best 2 units from your Category B courses are available for inclusion in the calculation of your ATAR.

**Courses that don’t contribute to the ATAR**
Board Endorsed courses (eg Photography, Video and Digital Imaging) are developed by schools or universities, rather than NESA. They do not count towards the calculation of the ATAR but may provide valuable experience and knowledge in a specific subject area.

Life Skills courses, which are studied by students with special education needs, and HSC–University Pathways programs, for high-achieving students, are also not ATAR courses.
Subject and course choice examples

Following are examples of possible subject combinations chosen by students for Years 11 and 12. Remember that you must have at least 2 units of English and you must study at least 12 units in Year 11.

First, let’s look at Fred and Laura’s course choices.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>Business Studies</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>English Advanced</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>Mathematics Advanced</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>Modern History</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>Visual Arts</td>
<td>2</td>
<td>A</td>
</tr>
</tbody>
</table>

Fred and Laura will be eligible for an ATAR because they meet all the ATAR eligibility rules (read page 9). At the end of Year 11, they could drop any course, except English, and still be eligible for an ATAR.

Emily will not eligible for an ATAR because she is studying only 6 units of Category A courses. No more than 2 units of Category B courses can be used in the calculation of the ATAR. She therefore only has 8 units of courses that can be used to calculate the ATAR. To be eligible for an ATAR you need to have 10 units of ATAR courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Advanced</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>Mathematics Advanced</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>Geography</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>Financial Services</td>
<td>2</td>
<td>B</td>
</tr>
<tr>
<td>Hospitality</td>
<td>2</td>
<td>B</td>
</tr>
<tr>
<td>Tourism and Events</td>
<td>2</td>
<td>B</td>
</tr>
</tbody>
</table>

With this combination of courses, Joshua meets the ATAR eligibility requirements.
However, if Joshua decides at the end of Year 11 to drop Chemistry and Biology and take on Mathematics Extension 2 and English Extension 2, his new pattern of study will look like this:

<table>
<thead>
<tr>
<th>Course</th>
<th>ATAR units</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Advanced</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>English Extension 1</td>
<td>1</td>
<td>A</td>
</tr>
<tr>
<td>English Extension 2</td>
<td>1</td>
<td>A</td>
</tr>
<tr>
<td>Mathematics Advanced</td>
<td>0</td>
<td>A</td>
</tr>
<tr>
<td>Mathematics Extension 1</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>Mathematics Extension 2</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>Ancient History</td>
<td>2</td>
<td>A</td>
</tr>
</tbody>
</table>

Even though Joshua is studying 10 units of Category A courses in Year 12, he will not eligible for an ATAR.

To be eligible for an ATAR you must complete four subjects. Joshua will have only completed three subjects: English, Mathematics and Ancient History.

Joshua also needs to be aware that only 4 units of maths can be included in the ATAR calculation. So taking Mathematics Advanced, Mathematics Extension 1 and Mathematics Extension 2 means that 2-unit Mathematics Advanced will not be available for Joshua’s ATAR calculation, even if he excels in it.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Standard</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>Business Studies</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>Legal Studies</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>Economics</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>Business Services</td>
<td>2</td>
<td>B</td>
</tr>
<tr>
<td>Hospitality</td>
<td>2</td>
<td>B</td>
</tr>
</tbody>
</table>

If Jessica keeps all her courses she will be eligible for an ATAR. But Jessica will need to be careful if she decides to drop a course.

For example, if Jessica drops Business Services or Hospitality she will still be eligible for an ATAR as she still meets the ATAR eligibility rules of 8 units of Category A courses and 2 units of Category B courses.

But if Jessica decides to drop Legal Studies she will no longer be eligible for an ATAR as she will only have 6 units of Category A courses.
FIND YOUR WAY TO UNI

Course Compass draws on the experience of over 100,000 recent UAC applicants to show you the paths taken by students just like you.

Try Course Compass at

uac.edu.au/coursecompass
Top tips for choosing HSC courses

– Make the link between your choices now and where you want to go after Year 12.
– If you want to get an ATAR, make sure you will be eligible. NSW Year 12 students must complete at least 10 units of ATAR courses. These ATAR courses must include at least:
  • 8 units of Category A courses
  • 2 units of English
  • three Board Developed courses of 2 units or greater
  • four subjects.
  You can include up to 2 units of Category B courses.
– Choose HSC courses that you’re good at and interested in, and that will lay a foundation for your future plans. In particular, choose courses that will prepare you well for the areas of university study you’re planning to pursue.
– If you’re not sure what level maths and English to take, choose the level that suits your ability and future plans, rather than trying to take advantage of how courses are scaled: you will not necessarily get a higher ATAR just by studying a lower level course. And be aware that while unis often increase your selection rank in recognition of your performance in particular HSC courses (usually for Bands 5 and 6), they don’t always reward your performance in the lower level courses, no matter how well you do.
– Just about any combination of courses can lead to a good ATAR; it all depends on how well you do in all your courses in comparison to other students. The table below addresses a number of scaling ‘myths’.
– Check if the uni you want to go to, or the course you want to do, has prerequisites (these can include a high-level maths or English course) and assumed knowledge. Details are published in Part 2 of this booklet.
– To make good choices about what to study, work to the best of your ability and focus on your goals for life after school.

Scaling Myths

<table>
<thead>
<tr>
<th>Myth</th>
<th>Fact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some courses are always ‘scaled up’; therefore I should study those.</td>
<td>The way a course is scaled depends entirely on the average academic performance of all the students doing that course that year – and it can change from year to year. For most courses, your scaled mark will be lower than your HSC mark. To get the best possible position and maximise your scaled marks, select the courses you’ll do best in.</td>
</tr>
<tr>
<td>Some courses are always ‘scaled down’; therefore I should avoid those.</td>
<td></td>
</tr>
<tr>
<td>‘Hard’ is a subjective term. Everyone has different strengths and interests. Students who achieve an ATAR of 99.95 study a large variety of subjects.</td>
<td></td>
</tr>
<tr>
<td>I should study Mathematics Standard 2 rather than Mathematics Advanced to get a better ATAR.</td>
<td>It’s very difficult to predict which course will lead to a higher scaled mark. Your scaled mark depends on the average academic ability of the students studying that course and your position in the course. When considering which maths course to study, remember that some university courses have prerequisites or assumed knowledge of Mathematics Advanced. It’s important to choose the level of maths that best suits your plans for further study.</td>
</tr>
</tbody>
</table>
HSC Board Developed courses to be examined in 2023

Category A courses

Note: Some course names may change as a result of the Stronger HSC Standards reforms. For further information and updates, visit the NESA website at educationstandards.nsw.edu.au.

### Number Course name Unit Subject area
15000 Aboriginal Studies 2 Aboriginal Studies
15010 Agriculture 2 Agriculture
15020 Ancient History 2 Ancient History
15280 History Extension 1 1 Ancient History
15030 Biology 2 Biology
15040 Business Studies 2 Business Studies
15050 Chemistry 2 Chemistry
15060 Community and Family Studies 2 Community and Family Studies
15070 Dance 2 Dance
15080 Design and Technology 2 Design and Technology
15090 Drama 2 Drama
15100 Earth and Environmental Science 2 Earth and Environmental Science
15110 Economics 2 Economics
15120 Engineering Studies 2 Engineering Studies
15155 English as an Additional Language or Dialect 2 English
15130 English Standard 2 English
15140 English Advanced 2 English
15160 English Extension 1 1 English
15170 English Extension 2 1 English
15180 Food Technology 2 Food Technology
15190 Geography 2 Geography
15200 Industrial Technology 2 Industrial Technology
15210 Information Processes and Technology 2 Information Processes and Technology
15215 Investigating Science 2 Investigating Science
15220 Legal Studies 2 Legal Studies
15236 Mathematics Standard 2 2 Mathematics
15255 Mathematics Advanced 2 2 Mathematics
15250 Mathematics Extension 1 1/2 Mathematics
15260 Mathematics Extension 2 2 Mathematics
15270 Modern History 2 Modern History
15280 History Extension 1 1 Modern History
15290 Music 1 2 Music
15300 Music 2 2 Music
15310 Music Extension 2 1 Music
15320 Personal Development, Health and Physical Education 2 Personal Development, Health and Physical Education
15330 Physics 2 Physics
15345 Science Extension 1 1 Science
15350 Society and Culture 2 Society and Culture
15360 Software Design and Development 2 Software Design and Development
15370 Studies of Religion I 4 1 Studies of Religion
15380 Studies of Religion II 4 2 Studies of Religion
15390 Textiles and Design 2 Textiles and Design
15400 Visual Arts 2 Visual Arts

### Number Course name Unit Subject area
15510 Arabic Continuers 2 Arabic
15520 Arabic Extension 1 Arabic
15530 Armenian Continuers 2 Armenian
15540 Chinese Beginners 2 Chinese
15550 Chinese Continuers 2 Chinese
15557 Chinese in Context 2 Chinese
15565 Chinese and Literature 2 Chinese
15570 Chinese Extension 1 Chinese
15580 Classical Greek Continuers 2 Classical Greek
15590 Classical Greek Extension 1 Classical Greek
15600 Classical Hebrew Continuers 2 Classical Hebrew
15610 Classical Hebrew Extension 1 Classical Hebrew
15620 Croatian Continuers 5 2 Croatian
15640 Dutch Continuers 2 Dutch
15660 Filipino Continuers 2 Filipino
15670 French Beginners 2 French
15680 French Continuers 2 French
15690 French Extension 1 French
15700 German Beginners 2 German
15710 German Continuers 2 German
15720 German Extension 1 German
15730 Hindi Continuers 2 Hindi
15740 Hungarian Continuers 2 Hungarian
15750 Indonesian Beginners 2 Indonesian
15760 Indonesian Continuers 2 Indonesian
15775 Indonesian and Literature 2 Indonesian
15780 Indonesian Extension 1 Indonesian
15790 Italian Beginners 2 Italian
15800 Italian Continuers 2 Italian
15810 Italian Extension 1 Italian
15820 Japanese Beginners 2 Japanese
15830 Japanese Continuers 2 Japanese
15837 Japanese in Context 2 Japanese
15845 Japanese and Literature 2 Japanese
15850 Japanese Extension 1 Japanese
15860 Khmer Continuers 2 Khmer
15870 Korean Beginners 2 Korean
15880 Korean Continuers 2 Korean
15887 Korean in Context 2 Korean
15895 Korean and Literature 2 Korean
15900 Latin Continuers 2 Latin
15910 Latin Extension 1 Latin
15940 Macedonian Continuers 2 Macedonian
15960 Maltese Continuers 2 Maltese
15970 Modern Greek Beginners 2 Modern Greek
15980 Modern Greek Continuers 2 Modern Greek
### Board endorsed courses (content endorsed courses)

These courses cannot be included in your ATAR calculation.

<table>
<thead>
<tr>
<th>Course name</th>
<th>Unit value</th>
<th>Subject area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aboriginal Languages</td>
<td>1 or 2</td>
<td>Aboriginal Languages</td>
</tr>
<tr>
<td>Ceramics</td>
<td>1 or 2</td>
<td>Ceramics</td>
</tr>
<tr>
<td>Computing Applications</td>
<td>1 or 2</td>
<td>Computing Applications</td>
</tr>
<tr>
<td>Exploring Early Childhood</td>
<td>1 or 2</td>
<td>Exploring Early Childhood</td>
</tr>
<tr>
<td>Marine Studies</td>
<td>1 or 2</td>
<td>Marine Studies</td>
</tr>
<tr>
<td>Photography, Video and Digital Imaging</td>
<td>1 or 2</td>
<td>Photography, Video and Digital Imaging</td>
</tr>
<tr>
<td>Sport, Lifestyle and Recreation Studies</td>
<td>1 or 2</td>
<td>Sport, Lifestyle and Recreation Studies</td>
</tr>
<tr>
<td>Visual Design</td>
<td>1 or 2</td>
<td>Visual Design</td>
</tr>
<tr>
<td>Work Studies</td>
<td>1 or 2</td>
<td>Work Studies</td>
</tr>
</tbody>
</table>

### Notes

1. You can study both Ancient History and Modern History, but there is only one History Extension course. It is considered a course within the subject of either Modern History or Ancient History.

2. The unit value of this course changes depending on whether the course is taken in combination with Mathematics or Mathematics Extension 2. (See page 39.)

3. You must study Music 2 if you wish to study Music Extension.

4. You may study either Studies of Religion I or Studies of Religion II, but not both.

5. You may study only one of the following languages: Croatian continuers, Macedonian continuers, Serbian continuers.

6. An optional HSC written examination in Category B courses is offered to eligible students. Subject to ATAR rules, you must undertake the optional written examination to have the results from this course available for inclusion in the calculation of your ATAR. Check with your school or the NESA website at educationstandards.nsw.edu.au for more information.
In this section, UAC’s participating institutions have listed the courses they plan to offer in 2024.

Part 2: Institution criteria
Under each course listed on the following pages, institutions have provided, where relevant, details of the following:
− areas of study within the course
− additional selection criteria
− prerequisites
− assumed knowledge
− recommended studies.

If these details are not provided under the course heading, there is no specific information you need to keep in mind when choosing your HSC courses.

Note that if an institution requires you to have studied a specific course in your HSC, the full name of the course is stated (eg Mathematics Extension 1). Refer to pages 44–45 for a list of HSC Board Developed courses.

In some subject areas, more than one course may meet the requirements. When this occurs, institutions have not listed all of the courses they accept, but you can assume they will accept extension courses and courses in the same subject area that challenge higher order thinking. For example, if institutions accept Mathematics Advanced they also accept Mathematics Extension 1 or Mathematics Extension 2, but not Mathematics Standard 2.

If the institution does not require you to have studied a specific level in your HSC, it is stated as ‘any 2 units of’. For example, where you read ‘any 2 units of English’, this means that any 2-unit English course is acceptable. Institutions that ask for ‘any 2 units of science’ indicate what courses this includes at the beginning of their entry.
**Prerequisites**

Prerequisites are HSC courses (or equivalent) you must have studied in order to be considered for admission to certain university courses. There are course prerequisites and subject prerequisites. There are also a small number of courses that require applicants to have completed post-Year 12 studies (eg a Diploma of Nursing).

**Course prerequisites**

Some university courses require you to have successfully completed, or achieved a specified standard in, an HSC course or equivalent before you'll be offered a place in the course. If you do not have the required course prerequisites, you cannot be selected for the course even though you may have met the other admission criteria.

Not all institutions have course prerequisites. Of those that do, some specify a performance band you must have achieved in your HSC course.

**Subject prerequisites**

Some subjects in a university course require you to have successfully completed, or achieved a specified standard in, an HSC course or equivalent before you are able to enrol in those particular subjects.

If you do not have the required subject prerequisites but have met the admission criteria for the course, you can still be selected for the course, but you may be unable to take the particular subject within the course.

Contact the relevant institution for details of any specified levels of achievement that are required and bridging or introductory courses that can help you achieve the required standard.

**Additional selection criteria**

Some courses have additional, non-ATAR selection criteria. You may need to provide a personal statement, answer a questionnaire, present a portfolio of work, attend an audition or interview, or sit a test such as the University Clinical Aptitude Test (UCAT).

**Assumed knowledge**

Some institutions assume you have a knowledge of specific HSC courses or equivalent before you begin the course. If you don’t have the assumed level of knowledge but do have a suitable ATAR, you can still be selected for the course but you may have difficulty coping with your studies.

Some institutions offer bridging or introductory courses to help you achieve the required level of assumed knowledge – contact the relevant institution for details.

**Recommended studies**

These are HSC or equivalent courses that the institutions suggest will help you in your chosen university course. If you have not studied these HSC courses, your chances of selection are not affected, but you may be offered a bridging course.
Biomedical Science

Areas of study: Biomedical sciences.

Course prerequisites: Any 2 units of English, any 2 units of mathematics.

Business Administration

Areas of study: Business law, economics, human resource management, international business, managing entrepreneurship and innovation, managing organisational change, marketing, organisational behaviour, strategic management.

Course prerequisites: Any 2 units of English.

Business/Commerce and Management

Areas of study: Accounting; business law; entrepreneurship; event management; finance; human resource management; Indigenous business studies; international business; management; marketing; occupational health, safety and environmental management.

Course prerequisites: Any 2 units of English.

Education

Early Childhood Education (Birth to Five Years)

Strathfield

Assumed knowledge: Any 2 units of English, any 2 units of mathematics.

Education (Early Childhood and Primary)

Strathfield/North Sydney/Blacktown

Assumed knowledge: Three Band 5 HSC results, including English, any 2 units of mathematics.

Canberra

Assumed knowledge: ACT: English (T), any mathematics (T)

NSW: Any 2 units of English, any 2 units of mathematics.

Education (Primary)

Strathfield/North Sydney/Blacktown

Assumed knowledge: Three Band 5 HSC results, including English, any 2 units of mathematics.

Canberra

Assumed knowledge: ACT: English (T), any mathematics (T)

NSW: any 2 units of English, any 2 units of mathematics.
Education (Primary and Special Education)

Strathfield/North Sydney
Assumed knowledge: Three Band 5 HSC results, including English, any 2 units of mathematics.

Canberra
Assumed knowledge: ACT: English (T), any mathematics (T). NSW: Any 2 units of English, any 2 units of mathematics.

Education (Primary and Secondary)

Strathfield/North Sydney
Assumed knowledge: Three Band 5 HSC results, including English, any 2 units of mathematics. For mathematics: Mathematics Advanced.

Canberra

Education (Secondary)

Strathfield/North Sydney
Assumed knowledge: Three Band 5 HSC results, including English, any 2 units of mathematics. For mathematics: Mathematics Advanced.

Canberra

Inclusive Education and Disability Studies

Areas of study: Community services, disability studies and school education.

Education (Secondary and Special Education)

Strathfield/North Sydney
Assumed knowledge: Three Band 5 HSC results, including English, any 2 units of mathematics. For mathematics: Mathematics Advanced.

Canberra

Education (Secondary) – Exercise Science

Strathfield
Areas of study: Ancient history, business studies, computing, drama, economics, English, exercise science, geography, mathematics, modern history, sociology, study of religions, visual arts.
Assumed knowledge: Three Band 5 HSC results, including English, any 2 units of mathematics. For mathematics: Mathematics Advanced.
Recommended studies: Personal Development, Health and Physical Education (PDHPE), plus one of Biology, Chemistry or Physics

Education (Secondary) – Humanities

Strathfield
Areas of study: Business studies, drama, economics, English, history, mathematics, philosophy, politics and international relations, psychology, sociology, study of religions, technology, theological studies, visual arts.
Assumed knowledge: Three Band 5 HSC results, including English, any 2 units of mathematics. For mathematics: Mathematics Advanced.

Education (Secondary) – Mathematics

Strathfield
Areas of study: Ancient history, business studies, computing, drama, economics, English, geography, mathematics, modern history, sociology, study of religions, visual arts.
Assumed knowledge: Three Band 5 HSC results, including English, any 2 units of mathematics. For mathematics: Mathematics Advanced.

Education (Secondary) – Technology

Strathfield
Areas of study: Computing, technology (design and technology (common), food technology, industrial technology, textiles and design).
Assumed knowledge: Three Band 5 HSC results, including English, any 2 units of mathematics. For mathematics: Mathematics Advanced.

Education (Secondary) – Visual Arts

Strathfield
Areas of study: Ancient history, business studies, computing, drama, economics, English, geography, history, mathematics, modern history, sociology, study of religions, visual arts.
Assumed knowledge: Three Band 5 HSC results, including English, any 2 units of mathematics. For mathematics: Mathematics Advanced.

Exercise and Sports Science

Exercise Science*
Areas of study: Exercise, sports science.
Course prerequisites: Any 2 units of English.
Recommended studies: Any 2 units of mathematics, Personal Development, Health and Physical Education (PDHPE), plus one of Biology, Chemistry or Physics.
* Only available as a combined degree option – refer to Combined degrees at the end of the ACU entry.

Global Studies*
* Only available as a combined degree option – refer to Combined degrees at the end of the ACU entry.

High Performance Sport
Areas of study: Coaching, exercise, sports science.
Course prerequisites: Any 2 units of English.
Recommended studies: Personal Development, Health and Physical Education (PDHPE), any 2 units of mathematics, Biology, Chemistry or Physics.

Information Technology
Assumed knowledge: Mathematics Advanced.

Laws
Course prerequisites: Any 2 units of English.

Midwifery
Areas of study: Midwifery.
Course prerequisites: Any 2 units of English.

Nursing
Areas of study: Nursing.

Nutrition Science
Areas of study: Nutrition.
Course prerequisites: Any 2 units of English.

Occupational Therapy
Areas of study: Occupational therapy.
Course prerequisites: Any 2 units of English plus at least one of Biology, Chemistry or Physics.
Paramedicine
Areas of study: Paramedicine.

Philosophy
Areas of study: Philosophy.

Physiotherapy
Areas of study: Physiotherapy.
Course prerequisites: Any 2 units of English plus at least one of Biology, Chemistry or Physics.

Psychological Science
Areas of study: Psychology.
Course prerequisites: Any 2 units of English.

Psychology (Honours)
Areas of study: Psychology.
Course prerequisites: Any 2 units of English.

Social Work
Areas of study: Human rights, social and behavioural sciences, social policy, social work.
Course prerequisites: ACT: English (T) (Major) NSW: Any 2 units of English.

Speech Pathology
Areas of study: Speech pathology.
Course prerequisites: Any 2 units of English plus at least one of Biology, Chemistry or Physics.

Theology
Areas of study: Ancient languages, biblical studies, early Christian studies, interreligious dialogue, liturgy and sacraments, ministry, moral theology, philosophy and liberal arts, systematic theology/contemporary Christian thought; world religions.

Visual Arts and Design
Areas of study: 3D/4D object design, art and design history and theory, drawing, graphic design, painting photography, printmaking, sculpture plus areas of study within Arts (business studies, communication, computing, drama, economics, education studies, geography, history, literature, mathematics, philosophy, politics and international relations, psychology, sociology, study of religions, theological studies, visual arts).
Assumed knowledge: Any 2 units of English.
Recommended studies: Visual Arts.

Combined degrees
If you intend to undertake combined degrees, check the prerequisites, assumed knowledge and recommended studies for both degrees. Contact the University for further details.

– Arts/Commerce
– Biomedical Science/Business Administration
– Commerce/Business Administration
– Exercise and Sports Science/Nutrition Science
– Exercise Science/Business Administration
– Information Technology/Business Administration

– Nursing/Business Administration
– Nursing/Paramedicine
– Nutrition Science/Business Administration
– Psychological Science/Arts
– Psychological Science/Commerce
– Psychological Science/Commerc
– Exercise and Sports Science
– Theology/Philosophy.

Global Studies
– Arts/Global Studies
– Business Administration/Global Studies

– Commerce/Global Studies
– Laws/Global Studies
– Theology/Global Studies.

Course prerequisites: Refer to the relevant entry for the other area of study.

Laws
– Arts/Laws
– Business Administration/Laws
– Biomedical Science/Laws
– Commerce/Laws

– Laws/Global Studies
– Philosophy/Laws
– Psychological Science/Laws
– Theology/Laws.

Course prerequisites: Refer to the relevant entry for the other area of study.

– Arts/Commerce
– Biomedical Science/Business Administration
– Commerce/Business Administration
– Exercise and Sports Science/Nutrition Science
– Exercise Science/Business Administration
– Information Technology/Business Administration

– Nursing/Business Administration
– Nursing/Paramedicine
– Nutrition Science/Business Administration
– Psychological Science/Arts
– Psychological Science/Commerce
– Psychological Science/Commerc
– Exercise and Sports Science
– Theology/Philosophy.

Global Studies
– Arts/Global Studies
– Business Administration/Global Studies

– Commerce/Global Studies
– Laws/Global Studies
– Theology/Global Studies.

Course prerequisites: Refer to the relevant entry for the other area of study.

Laws
– Arts/Laws
– Business Administration/Laws
– Biomedical Science/Laws
– Commerce/Laws

– Laws/Global Studies
– Philosophy/Laws
– Psychological Science/Laws
– Theology/Laws.

Course prerequisites: Refer to the relevant entry for the other area of study.
Case Management (Dip)

Areas of study: Assessment and analysis, child protection framework, community case management facilitation, mental health.

Recommended studies: Any 2 units of English.

Counselling

Areas of study: Addictive behaviours counselling, counselling and neuroscience, crisis counselling, mental health and wellness, positive psychology.

Recommended studies: Any 2 units of English.

Psychological Science

Areas of study: Intercultural diversity and Indigenous psychology, learning and memory, perception and cognition, psychopathology, research methods, social psychology, statistics.

Recommended studies: Mathematics Advanced, any 2 units of English.

Social Work

Areas of study: Contemporary society, government, public policy and civil society, human services, psychology.

Recommended studies: Any 2 units of English.
Applied Fitness

Applied Fitness (Dip)
- **Areas of study:** Bachelor: Fitness science, health studies, physical activity and exercise prescription, professional development. Diploma: Fitness instruction, fitness science, fitness studies
- **Course prerequisites:** Any 2 units of English.
- **Recommended studies:** Personal Development, Health and Physical Education (PDHPE).

Dance

Dance Education
- **Areas of study:** Anatomy, dance, health education, dance performance.
- **Course prerequisites:** 3 Band 5’s or higher including English.
- **Additional selection criteria:** Audition.
- **Recommended studies:** Personal Development, Health and Physical Education (PDHPE).

Dance Practice
- **Areas of study:** Dance performance, dance and community, dance business, health.
- **Course prerequisites:** Any 2 units of English.
- **Additional selection criteria:** Audition.
- **Recommended studies:** Dance.

Health Science (Dance)
- **Areas of study:** Dance, health science, anatomy, dance performance.
- **Course prerequisites:** Any 2 units of English.
- **Additional selection criteria:** Audition.
- **Recommended studies:** Personal Development, Health and Physical Education (PDHPE), any 2 units of mathematics, Biology, Chemistry or Physics.

Education – Physical and Health Education
- **Areas of study:** Physical education, health education, health science.
- **Course prerequisites:** 3 Band 5’s or higher including English.
- **Recommended studies:** Personal Development, Health and Physical Education (PDHPE).

Health and Movement
- **Areas of study:** Health promotion, sport, PDHPE.
- **Course prerequisites:** Any 2 units of English.
- **Recommended studies:** Personal Development, Health and Physical Education (PDHPE).

Health Science

Exercise
- **Areas of study:** Bioscience, determinants of health, exercise science, Anatomy.
- **Course prerequisites:** Any 2 units of English.
- **Recommended studies:** Personal Development, Health and Physical Education (PDHPE), any 2 units of mathematics, Biology, Chemistry or Physics.

Fitness
- **Areas of study:** Bioscience, determinants of health, fitness, anatomy.
- **Course prerequisites:** Any 2 units of English.
- **Recommended studies:** Personal Development, Health and Physical Education (PDHPE), any 2 units of mathematics, Biology, Chemistry or Physics.

Sport Business (Leadership)
- **Areas of study:** Sports analytics, sports law and integrity, leadership and governance, entrepreneurship and innovation, event and project management.
- **Course prerequisites:** Any 2 units of English.

Sport Coaching

Strength and Conditioning
- **Areas of study:** Sports coaching, exercise physiology, human movement, performance analysis.
- **Course prerequisites:** Any 2 units of English.
- **Recommended studies:** Personal Development, Health and Physical Education (PDHPE).

Management
- **Areas of study:** Anatomy, exercise physiology, human movement, performance analysis, sport administration, sport coaching, sport psychology.
- **Course prerequisites:** Any 2 units of English.
- **Recommended studies:** Personal Development, Health and Physical Education (PDHPE).
Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

Accounting

Areas of study: Accounting.

Assumed knowledge: ACT: Mathematical Methods (Major) / Further Mathematics (Major)/Specialist Mathematics (Major)/Specialist Methods (Major) 
NSW: Mathematics Advanced.

Actuarial Studies

Areas of study: Accounting, actuarial studies, economics, finance, statistics.

Course prerequisites: ACT: Specialist Mathematics (Major/Minor) (160+)/Specialist Methods (Major/Minor) (160+) NSW: Mathematics Extension 1 (Band E3).

Recommended studies: ACT: Specialist Mathematics (Double Major) NSW: Mathematics Extension 2.
Asian studies; Asia-and-Pacific culture; Australian Indigenous studies; biological anthropology; Chinese language; Chinese studies; contemporary Europe; criminology; demography; development studies; digital humanities; economic studies; English; environmental studies; French language and culture; gender, sexuality and culture; geography; German language and culture; global security, Hindi language; history; human evolutionary biology; human rights; India studies; Indonesian language; Indonesian studies; international communications; international relations; Italian language and culture; Japanese language; Japanese linguists; Japanese studies; Korean language; Korean studies; Latin; linguistics; mathematics, media and gender; Middle Eastern and Central Asian studies; music; music technology; Northeast Asia studies; Pacific studies; peace and conflict studies; Persian; philosophy; political science; psychology; Sanskrit language; sociology; Southeast Asian studies; Spanish; technology, networks and society; Thai language; Vietnamese language; war studies.

Politics, Philosophy and Economics

Areas of study: Economics, philosophy, political science.

Asian Studies

Areas of study: Anthropology; Arabic; archaeology; Asian and Pacific culture, media and gender; Asian and Pacific linguistics; Asian history; Asia-Pacific politics; Asia-Pacific security studies; Burmese language; Chinese language; Chinese studies; French language and culture; Hindi language; historical international security; India studies; Indonesian language; Indonesian studies; Japanese language; Japanese linguistics; Japanese studies; Korean language; Korean studies; Literary Chinese; Mongolian language; Northeast Asian studies; Pacific studies; peace and conflict studies; Portuguese language; Sanskrit language; South Asian studies; Southeast Asian studies; Spanish language; Tetum language; Thai language; Tibetan language; Tok Pisin language; Vietnamese language.

Biotechnology

Areas of study: Biotechnology.

Course prerequisites: ACT: Chemistry (Major) NSW: Chemistry.

Business Administration

Areas of study: Business, international business, leadership, management, marketing.

Commerce

Areas of study: Accounting, business information systems, corporate sustainability, economic studies, finance, international business, management, marketing.

Assumed knowledge: ACT: Mathematical Methods (Major)/Further Mathematics (Major)/Specialist Mathematics (Major)/Specialist Methods (Major) NSW: Mathematics Advanced.

Design

Areas of study: Animation and video, ceramics, creative code, data visualisation, design, front-end web design, furniture, glass, jewellery and object, graphic design, painting, photomedia and drawing, product design, sculpture textiles, visual communication.

Additional selection criteria: Interview, portfolio.

Economics

Areas of study: Econometrics and statistics, economic history, economics.

Assumed knowledge: ACT: Mathematical Methods (Major)/Further Mathematics (Major)/Specialist Mathematics (Major)/Specialist Methods (Major) NSW: Mathematics Advanced.

Engineering (Hons)

Areas of study: Electronic and communication systems, engineering design, environmental systems, humanitarian engineering, mechatronic systems, renewable energy systems, systems design.

Course prerequisites: ACT: Mathematical Methods (Major)/Further Mathematics (Major)/Specialist Mathematics (Major)/Specialist Methods (Major) NSW: Mathematics Advanced.

Assumed knowledge: ACT: Physics (Major) NSW: Physics.

Recommended studies: ACT: Specialist Mathematics (Major/Minor) NSW: Mathematics Extension 1.

Engineering (Research and Development)

Areas of study: Electronic and communication systems, engineering design, engineering R&D, environmental systems, humanitarian engineering, mechatronic systems, renewable energy systems, systems design.

Course prerequisites: ACT: Mathematical Methods (Major)/Further Mathematics (Major)/Specialist Mathematics (Major)/Specialist Methods (Major) NSW: Mathematics Advanced.

Assumed knowledge: ACT: Physics (Major) NSW: Physics.

Recommended studies: ACT: Specialist Mathematics (Double Major) NSW: Mathematics Extension 2.

Environment and Sustainability

Areas of study: Environmental science, quantitative environmental modelling, resource and environmental management, sustainability science.

Finance

Areas of study: Asian capital markets, capital markets, quantitative finance.

Assumed knowledge: ACT: Mathematical Methods (Major)/Further Mathematics (Major)/Specialist Mathematics (Major)/Specialist Methods (Major) NSW: Mathematics Advanced.

Finance, Economics and Statistics

Areas of study: Economics, finance, statistics.

Course prerequisites: ACT: Specialist Mathematics (Major/Minor) (160+)/Specialist Methods (Major/Minor) (160+) NSW: Mathematics Extension 1 (Band E3).

Recommended studies: ACT: Specialist Mathematics (Double Major) NSW: Mathematics Extension 2.

Genetics

Areas of study: Genetics, including the traditional areas of evolutionary, Mendelian, and population genetics; more recent developments in medical and molecular genetics and bioinformatics.

Course prerequisites: ACT: Chemistry (Major) NSW: Chemistry.

Health Science

Areas of study: Biology, health science, Indigenous health, medical science, population health, science communication.

Assumed knowledge: ACT: Chemistry (Major) NSW: Chemistry.
Information Technology
Areas of study: Artificial intelligence, cyber security, data science, information systems, IT in new media, networking, programming, software development.
Course prerequisites: ACT: Mathematical Methods (Major)/Further Mathematics (Major)/Specialist Mathematics (Major)/Specialist Methods (Major) NSW: Mathematics Advanced.

International Business
Areas of study: Asian languages (Chinese, Hindi, Indonesian, Japanese, Korean, Sanskrit, Thai, Vietnamese), European languages (French, German, Italian, Spanish), Middle Eastern languages (Arabic, Persian, Turkish, Urdu), a Latin American language (Spanish), cultural studies and institutions, international business and management.
Assumed knowledge: ACT: Mathematical Methods (Major)/Further Mathematics (Major)/Specialist Mathematics (Major)/Specialist Methods (Major) NSW: Mathematics Advanced.

International Security Studies
Areas of study: International security studies plus Arabic, Asian studies, Asia-Pacific security, Burmese language, Chinese language, contemporary Europe, criminology, French language and culture, gender and sexuality, German language and culture, Hindi language, historical international security, Indonesian language, international communication, international relations, Italian language and culture, Japanese language, Korean language, Latin American studies, Middle Eastern and Central Asian studies, Mongolian language, networks and societ, Northeast Asian studies, Pacific studies, peace and conflict studies, Persian language, philosophy, Russian language, Sanskrit language, social research methods, Southeast Asian studies, Spanish language, sustainable development, technology, Tetum language, Thai language, Tok Pisin language, Vietnamese language, war studies.
Study of security and foreign policy issues is also possible in the Arts and Asian Studies degrees.

Languages
Areas of study: Ancient Greek, Arabic, Burmese, Chinese, French language and culture, German language and culture, Hindi, Indonesian, Italian language and culture, Japanese, Korean, Latin, Mongolian, Persian, Russian, Sanskrit, Spanish, Tetum, Thai, Tok Pisin, Vietnamese.

Law
Areas of study: Law.

Mathematical Sciences
Areas of study: Computer science, mathematics, statistics.

Medical Science
Areas of study: Anatomy, biochemistry, ethics, genetics, immunology, microbiology, molecular biology, neuroscience, nutrition, physiology, psychology.
Course prerequisites: ACT: Chemistry (Major) NSW: Chemistry.

Music
Areas of study: Composition, composition for film and video games, music technology, musicology, performance.
Additional selection criteria: Some music courses require an audition.

Pacific Studies
Areas of study: Anthropology; archaeology; art history and theory; Asian art history; Asian history; Asian and Pacific anthropology; Asian and Pacific culture; Asia-Pacific international relations; Australian Indigenous studies; biodiversity conversation and management; Chinese language, climate science and policy; comparative politics; conflict studies; development studies; environmental studies; French language and culture; gender, sexuality and culture; geography; German language and culture; Hindi language; history; Indonesian language; international relations; Japanese, media and gender; Pacific studies; philosophy; political science; political theory; popular music; social research methods; sociology; Spanish language; sustainable development; Tetum; Tok Pisin; visual arts practice; war studies.

Psychology
Areas of study: Psychology.

Science
Areas of study: Astronomy and astrophysics, biochemistry, biological anthropology, cell and molecular biology, chemistry, computer science, earth science, environmental science, evolution, ecology and organismal biology, geography, marine science, mathematical economics, mathematical finance, mathematical modelling, mathematics, physics, psychology, quantitative environmental modelling, quantitative biology, resource and environmental management, science communication, statistics, sustainability studies and water science.
Subject prerequisites and assumed knowledge: Some science courses have subject prerequisites or assumed knowledge of Mathematics Advanced, Physics or Chemistry. For further information, visit programsandcourses.anu.edu.au.

Social Science (Actuarial Studies and Economics)
Areas of study: Actuarial studies, economics, statistics.
Course prerequisites: ACT: Specialist Mathematics (Major/Minor) (160+)/Specialist Methods (Major/Minor) (160+) NSW: Mathematics Extension 1 (Band E3).
Recommended studies: ACT: Specialist Mathematics (Double Major) NSW: Mathematics Extension 2.

Statistics
Areas of study: Applied statistics, probability and stochastic processes, statistical data analysis, theoretical statistics.
Course prerequisites: ACT: Specialist Mathematics (Major/Minor) (160+)/Specialist Methods (Major/Minor) (160+) NSW: Mathematics Extension 1 (Band E3).
Recommended studies: ACT: Specialist Mathematics (Double Major) NSW: Mathematics Extension 2.

Visual Arts
Areas of study: Animation and video, ceramics, furniture, glass, gold and silversmithing, painting, photomedia, print media and drawing, sculpture, textiles.
Additional selection criteria: Interview, portfolio.
Flexible Double Degrees

The Australian National University offers flexible double degrees, which allow you to choose from hundreds of possible combinations across three groups. For details, search for ‘study options’ at anu.edu.au then select ‘Flexible Double Degrees’, or visit programsandcourses.anu.edu.au to create your own program. Program availability and combination options are subject to change.

The three groups available are:
- Arts, Social Sciences, Business and Science (4 years)
- Engineering or Advanced Computing (5 years)
- Law (5 years).

You can combine any two courses (for which you meet the selection rank) from the group.

Flexible Double Arts, Social Sciences, Business and Science

By selecting this group as a preference, you can choose any two of the following bachelor degrees at the time of accepting your offer:
- Accounting
- Actuarial Studies* (cannot be combined with Business Administration)
- Applied Data Analytics
- Archaeological Practice
- Art History and Curatorship
- Arts
- Asian Studies
- Biotechnology* (cannot be combined with Arts or Science)
- Business Administration
- Classical Studies
- Commerce
- Criminology
- Design*
- Development Studies
- Economics
- Environment and Sustainability
- European Studies
- Finance
- Genetics* (cannot be combined with Business Administration or Genetics)
- Middle Eastern and Central Asian Studies
- Music*
- Pacific Studies
- Public Policy
- Political Science
- Science (Psychology)
- Statistics*
- Visual Arts*

Flexible Double Engineering or Advanced Computing

By selecting this group as a preference, you can choose any one of the following bachelor degrees:
- Advanced Computing (Bachelor/Master) options. For details, search for ‘study options’ at anu.edu.au then select ‘Flexible Double Degrees’, or visit programsandcourses.anu.edu.au to create your own program.

Refer to the single bachelor degree entry for course prerequisites, major studies and other requirements.

Undergraduate Research Degrees

The Australian National University offers the following undergraduate research degrees:
- B Advanced Computing (Research and Development) (Hons)
- B Engineering (Research and Development) (Hons)
- B Finance, Economics and Statistics (Hons)
- B Science (Advanced) (Hons)
- B Philosophy (Hons)
- B Philosophy (Hons, Science*)
- B Philosophy (Hons, Humanities and Social Sciences*)

*B Philosophy courses are also available as joint degrees with the National University of Singapore. Contact the Australian National University for more information about these courses. For more information, search for ‘study options’ at anu.edu.au.

* Courses marked with an asterisk include prerequisites and/or additional selection criteria – see main area of study for requirements.

* Engineering (Research and Development) (Honours) cannot be combined with these programs.
Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

### Accounting
Areas of study: Business, economics, finance.

### Alcohol and Other Drugs (Dip)
Areas of study: Humanities, social sciences.

### Arts
#### Arts (Dip)
Areas of study: Aboriginal and Australian studies, humanities, design, languages, music, policy, social science.

### Architectural Design
Communications, Literature and Digital Media
Contemporary Indigenous Australia
Creative and Digital Arts
Global Humanities in a Digital Age
Indigenous Governance and Policy
Languages and Linguistics
Music Making, Production and Performance
Society and Culture

### Business
Areas of study: Business and management, marketing, tourism.

### Entrepreneurship and Innovation
Human Resource Management
International Management and Logistics
Project Management
Strategic Marketing and Communication
Tourism and Destination Management
Workplace Health and Safety

### Computer Science
Areas of study: Computing, information technology.

### Counselling (Dip)
Areas of study: Humanities, social sciences.

### Digital Enterprise
#### Digital Enterprise (Dip)
Areas of study: Business, computing, data and business analytics, information technology.
Assumed knowledge: Mathematics Advanced.

### Education
#### Early Childhood (Birth-12 Years)
Primary
Secondary
Areas of study: Education, teaching.

### Educational Studies (Dip)
Early Childhood Education and Care
Primary
Secondary
Areas of study: Education, teaching.

### Engineering Science
Civil and Structural
Electrical and Electronics
Mechanical
Areas of study: Engineering.
Assumed knowledge: Mathematics Advanced.

### Engineering (Hons)
Engineering (AssocDeg)
Engineering (Dip)
Civil and Structural
Electrical and Electronics
Mechanical
Areas of study: Engineering.
Course prerequisites: For Engineering (Hons): Mathematics Advanced or Physics.

### Environmental Science
Areas of study: Biodiversity and conservation, eco-cultural resource management, environmental studies, water and landscapes.
Charles Darwin University

Exercise and Sport Science
Exercise and Sport Science (AssocDeg)
Areas of study: Business and management, coaching, clinical pilates, exercise, general, health, public health, rehabilitation, strength and conditioning, sport psychology, sports science.

Health Science
Areas of study: Health, occupational therapy, nutrition, speech and language therapy.

Health Science (DIP)
Areas of study: Allied health, chiropractic studies, health services management.

Health Services Management
Areas of study: Health, management.

Humanitarian Aid and Development
Areas of study: Humanities, social sciences.

Indigenous Research (Dip)
Areas of study: Aboriginal and Australian studies.

Information and Communications Technology (AssocDeg)
Areas of study: Computing and information technology.

Information Technology
Areas of study: Computing and information technology.

Laws
Laws (Dip)
Areas of study: Law, legal studies.

Laws (Combined)
– Accounting/Laws (Dip)
Areas of study: Business, finance, law, legal studies.

Legal Studies (AssocDeg)
Areas of study: Law, legal studies.

Medical Laboratory Science
Areas of study: Health, medical laboratory science.
Assumed knowledge: Chemistry.

Network Engineering (AssocDeg)
Network Engineering (Dip)
Areas of study: Computing, information technology.

Nursing
Areas of study: Health, medicine, nursing.

Public Health
Areas of study: Epidemiology, cultural safety, global and environmental health.

Psychological Science
Areas of study: Abnormal psychology, cognitive psychology, learning and motivation, psychology, research methods, social-cultural psychology.

Psychology (Dip)
Areas of study: Psychology.

Science
Science (Dip)
Areas of study: Biology, biomedical science, chemistry, ecology, geographic information science, health and physical education, mathematics and physics, science.

Social Care (Dip)
Areas of study: Humanities, social sciences.

Social Work
Areas of study: Humanities, social sciences.

Software Engineering (Hons)
Areas of study: Computing and information technology, engineering.
Assumed knowledge: Mathematics Advanced.

Combined and Double Degrees
If you intend to undertake combined degrees, check the prerequisites, assumed knowledge and recommended studies for both degrees. Contact the University for further details.

– Computer Science/Master of Information Technology
– Engineering Science (Civil and Structural)/Master of Engineering
– Engineering Science (Electrical and Electronics)/Master of Engineering
– Engineering Science (Mechanical)/Master of Engineering
– Health Science/Master of Nutrition
– Health Science/Master of Occupational Therapy
– Health Science/Master of Speech and Language Therapy

Charles Darwin University
Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

Agriculture

Agriculture

Areas of study: Agribusiness, agronomy, farm production, livestock production.


Recommended studies: Biology and/or Chemistry, Mathematics Advanced.

Agricultural Science

Areas of study: Agronomy, digital agriculture, horticulture, livestock production, mixed farm business.


Recommended studies: Biology and/or Chemistry, Mathematics Advanced.

Agricultural Business Management

Areas of study: Agricultural business management (farm, horticultural, land, viticultural).


Horticulture

Areas of study: Applied plant science, management.

Recommended studies: Biology.

Animal Science

Animal Science

Areas of study: Animal production and management, biomedical science, equine science and management, wildlife conservation and management.

Assumed knowledge: Chemistry, Mathematics Advanced.

Equine Science

Areas of study: Equine breeding and management, equine business management, equine exercise physiology, equine health and welfare, equine nutrition, equine science.

Assumed knowledge: Biology, Chemistry, Mathematics Advanced.

Applied Science

Outdoor Recreation and Ecotourism

Areas of study: Indigenous and cultural heritage, outdoor recreation, visitor services and open space management, wildlife and conservation.

Arts

English

Environmental Studies

History

Human Services

Humanities Pathway to Teaching

Justice Studies

Management and Marketing

Philosophy and Ethics

Psychology

Sociology

Writing and Publishing

Recommended studies: Any 2 units of English.

Read this first

When you read ‘any 2 units of science’ this can include Biology, Chemistry, Physics, Earth and Environmental Science or Investigating Science.
Business
Accounting
Business Studies
Assumed knowledge: Mathematics Advanced.

Communication
Content creation
Areas of study: Design, digital and social media, editing, producing, project management, media and data, video production.
Recommended studies: English Standard or English Advanced, Business Studies, Design and Technology, Economics, Legal Studies, Society and Culture, Software Design and Development.

Integrated Marketing Communication
Areas of study: Advertising, design and content creation, digital and social media, entrepreneurship, event management, media and data, project management, public relations, strategic communication.
Recommended studies: English Standard or English Advanced, Business Studies, Design and Technology, Economics, Legal Studies, Society and Culture, Software Design and Development.

News and Media
Areas of study: Content creation, data and analytics, digital and social media, journalism, persuasive communication.
Recommended studies: English Standard or English Advanced, Business Studies, Design and Technology, Economics, Legal Studies, Society and Culture, Software Design and Development.

Education
Early Childhood and Primary
Areas of study: Teaching (early childhood), teaching (primary).
Assumed knowledge: Entry standards for initial teacher education courses are three Band 5 results, including English, in the NSW HSC or equivalent. Charles Sturt University courses are designed for and accredited with alternative entry, as all students undertake core discipline studies in the first two years of study equivalent to three Band 5 results, including English and Mathematics Advanced, before undertaking curriculum and professional studies.
Recommended studies: Any 2 units of English, any 2 units of mathematics.

K–12
Areas of study: Teaching (primary) and teaching (secondary) in human society and its environment/business studies, English, mathematics, human society and its environment/modern history, science (biology, chemistry, physics), human society and its environment/geography, human society and its environment/legal studies, visual arts, drama or Personal Development, Health and Physical Education (PDHPE). Majors are dependent on campus offerings and study may be mixed mode (online and on-campus).
Assumed knowledge: Entry standards for initial teacher education courses are three Band 5 results, including English, in the NSW HSC or equivalent. Charles Sturt University courses are designed for and accredited with alternative entry, as all students undertake core discipline studies in the first two years of study equivalent to three Band 5 results, including English and Mathematics Advanced, before undertaking curriculum and professional studies.
Recommended studies: Any 2 units of mathematics.

Technology and Applied Studies
Areas of study: Teaching (secondary school) design and technology and one of the following: agriculture, food technology, industrial technology and information technology (software design, information systems). Food and industrial technology specialists can also choose an additional teaching area in graphics and multimedia or textiles.
Assumed knowledge: Entry standards for initial teacher education courses are three Band 5 results, including English, in the NSW HSC or equivalent. Charles Sturt University courses are designed for and accredited with alternative entry, as all students undertake core discipline studies in the first two years of study equivalent to three Band 5 results, including English and mathematics, before undertaking curriculum and professional studies.
Recommended studies: Any 2 units of English, any 2 units of mathematics, Design and Technology and/or any of the following: Agriculture, Food Technology, Industrial Technology, Information Processes and Technology, Software Design and Development, Textiles and Design.

Engineering
Areas of study: Entrepreneurship, structures, transport and infrastructure, water resources.
Assumed knowledge: Any 2 units of English, any 2 units of mathematics.
Recommended studies: Chemistry, Physics.

Health Science
Dental Science
Assumed knowledge: Chemistry, Mathematics Advanced, Physics.
Recommended studies: English Standard.

Occupational Therapy
Assumed knowledge: English Standard.
Recommended studies: Biology.

Oral Health (Therapy and Hygiene)
Assumed knowledge: Chemistry, English Standard.
Recommended studies: Biology.
Paramedicine
Assumed knowledge: Biology, Mathematics Advanced, any 2 units of English.
Recommended studies: Investigating Science, first-aid training, medical terminology.

Podiatric Medicine
Assumed knowledge: English Standard.
Recommended studies: Biology, Mathematics Advanced.

Physiotherapy
Assumed knowledge: Biology, English Standard, Mathematics Advanced.
Recommended studies: Chemistry, Physics.

Information Technology

Computer Science
Areas of study: Computer science, games programming
Assumed knowledge: Mathematics Advanced.

Information Technology
Areas of study: Business analysis, cyber security, network engineering, software design and development, web development.

Law
Areas of study: Law.
Assumed knowledge: English Advanced, Legal Studies.

Medical Laboratory Science
Areas of study: Biotechnology, clinical physiology, medical science, pathology.
Assumed knowledge: Chemistry, Mathematics Advanced.

Medical Radiation Science
Areas of study: Diagnostic radiography, nuclear medicine and molecular imaging, radiation therapy.
Assumed knowledge: Mathematics Advanced, Physics.

Medicine
Recommended studies: Biology, Chemistry, Physics.
Additional selection criteria: University Clinical Aptitude Test (UCAT ANZ), interview.

Nursing
Assumed knowledge: English Standard, Mathematics Advanced, Biology, Chemistry.

Pharmacy
Assumed knowledge: Chemistry, Mathematics Advanced.
Recommended studies: Biology.

Policing
Areas of study: Policing.

Psychology
Areas of study: Psychology, social science, sociology. Students also complete a minor study in another discipline (e.g., biology, business, English, history and politics, justice studies, law, social welfare).

Science
Areas of study: Analytical chemistry, conservation biology, mathematics, microbiology and immunology, physics, plant science, spatial science
Assumed knowledge: Mathematics Advanced, any 2 units of science.
Recommended studies: Biology, Chemistry and/or Physics.

Social Science
Areas of study: Criminal justice, psychology.

Social Work and Human Services
Australian Indigenous Welfare
Child, Youth and Family Practice
Disability
Gerontology and Healthy Ageing
Human Services
Mental Health and Addiction
Multicultural Welfare
Areas of study: Human rights, psychology, social work, sociology.
Recommended studies: Society and Culture.

Theology
Areas of study: Biblical studies, church history, systematic and practical theology.

Veterinary Science
Veterinary Biology/Veterinary Science
Assumed knowledge: Biology, Chemistry, Mathematics Advanced.
Additional selection criteria: Supplementary application form, interview.

Veterinary Technology
Areas of study: Clinical technology, large animal technology, practice management.
Assumed knowledge: Chemistry, Mathematics Advanced.

Combined Degrees
If you intend to undertake combined degrees, check the additional selection criteria, assumed knowledge and recommended studies for both degrees. Contact the University for further details.

- Law/Criminal Justice
Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

Read this first

When you read ‘any 2 units of science’ this can include Biology, Chemistry, Physics, Earth and Environmental Science or Investigating Science.

Accounting
Areas of study: Accounting, business computing, contract law, financial planning, property, public relations.
Recommended studies: English Standard, Mathematics Advanced.

Agriculture
Areas of study: Agricultural business, cropping, horticulture, landcare, livestock.
Recommended studies: Biology, Mathematics Advanced.

Allied Health
Areas of study: Community health, health care, healthy ageing and aged care, indigenous health and wellbeing.
Course prerequisites: English Standard.
Recommended studies: Biology, Chemistry, Physics.

Arts
Arts (Dip)
Areas of study: Business, creative writing, English and cultural studies, environmental studies, geography, history, journalism, liberal arts, visual arts.
Course prerequisites: For B Arts: English Standard.

Aviation Flight Operations
Aviation Flight Operations (Assoc Deg)
Areas of study: Aerodynamics, air service operations, air traffic control, aircraft systems, airspace classifications, flight service and handling emergencies, meteorology, navigation, pilot licences and ratings.
Recommended studies: English Standard, Mathematics Advanced, Physics.

Building Design
Building Design (Assoc Deg)
Areas of study: Architecture, building, construction, contract administration, design of residential and commercial buildings.
Recommended studies: English Standard, Mathematics Advanced.

Building Surveying and Certification
Building Surveying (Assoc Deg)
Areas of study: Assessment and inspection of construction for compliance, building, construction, surveying.
Recommended studies: English Standard, Mathematics Advanced.

Business
Areas of study: Accounting, financial planning, human resources management, management, marketing, property.
Recommended studies: English Standard.

Business Studies (Dip)
Areas of study: Accounting, financial planning, human resources management, management, marketing, property.
Recommended studies: English Standard.

Construction Management
Areas of study: Building law and regulations, building materials, building systems, built environment, construction, contracts, cost planning and control, geotechnical studies, structural forms.
Recommended studies: English Standard, Mathematics Standard 2.

Criminology
Areas of study: Criminology, human behaviour, philosophy, politics, psychology, social theory, sociology.
Course prerequisites: English Standard.

Digital Media
Digital Media (Assoc Deg) or Digital Media (Dip)
Areas of study: Animation, digital design, graphic design, interactive media, technology and media, video and animation.
Course prerequisites: For B Digital Media and Digital Media (Assoc Deg): English Standard.
Echocardiography (Cardiac Physiology)

Areas of study: Adult echocardiography, cardiac physiology, foetal echocardiography, paediatric cardiovascular, vascular sonography.

Recommended studies: Biology, English Standard, Mathematics Advanced, Physics.

Engineering
Engineering (Assoc Deg)

Areas of study: For Engineering: Civil, electrical, mechanical, mechatronics, resource systems. For Engineering (Assoc Deg): Civil, electrical, geology, mechanical, mining.


Recommended studies: For Engineering: Mathematics Extension 1, Physics. For Engineering (Assoc Deg): English Standard, Mathematics Advanced, any 2 units of science.

Medical Science

Areas of study: Biotechnology, clinical investigation, indigenous health, nutrition, pathology.

Recommended studies: Biology, Chemistry, English Standard, Mathematics Advanced.

Medical Sonography

Areas of study: Abdominal sonography, musculoskeletal sonography, paediatric sonography, superficial structures in ultrasound, ultrasound obstetrics and gynaecology, vascular sonography.

Recommended studies: Chemistry, Biology, English Standard, Mathematics Advanced, Physics.

Music

Music (Dip)

Areas of study: Classical, jazz or contemporary popular music; music history and music technology; music studies; western music.

Recommended studies: Music 2.

Nursing

Areas of study: Aged care, health care, mental health, nursing.

Recommended studies: English Standard, Biology, Chemistry, Mathematics Advanced.

Occupational Health and Safety

Occupational Health and Safety (Assoc Deg)

Areas of study: Accident investigation, environmental studies, human factors, liberal studies, occupational health and safety, public health, safety science.

Course prerequisites: English Standard.

Recommended studies: Mathematics Advanced, Biology, Chemistry, or Physics.

Property

Areas of study: Asset management, facility management, property finance, property management, property valuation.

Recommended studies: English Standard, Mathematics Advanced.

Psychological Science

Areas of study: Counselling, data analysis, health, human development, psychology, research methods.

Course prerequisites: English Standard.

Recommended studies: Mathematics Advanced, any 2 units of science.

Public Health

Public Health (Assoc Deg)

Areas of study: Environmental health, environmental science, exercise science, health promotion, Indigenous studies, management and human resources, nutrition, occupational health and safety.

Recommended studies: Biology, Chemistry, English Standard, Physics.

Science

Areas of study: Agricultural sciences, applied biology, applied chemistry, environmental chemistry, forensic science, microbiology.

Course prerequisites: English Standard.

Recommended studies: Biology, Chemistry, Mathematics Advanced.
Science (Criminology and Psychology)

Areas of study: Criminal justice, criminology, forensic science, human behaviour, law, psychology.

Course prerequisites: English Standard.

Social Work

Areas of study: Advocacy, aged care, child protection, counselling, crisis intervention, disability, mental health, social justice, youth justice.

Course prerequisites: English Standard.

Combined degrees

If you intend to undertake combined degrees, check the prerequisites, assumed knowledge and recommended studies for both degrees. Contact the University for further details.

- Accounting/Business
- Business/Professional Communication
- Engineering/Building Design
- Engineering/Construction
- Engineering/Information Technology
- Laws/Accounting
- Laws/Arts
- Laws/Business
- Laws/Criminology
- Laws/Information Technology
- Laws/Property
- Laws/Science (Psychology)
Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

**Applied Financial Advice**
*Course prerequisites:* Any 2 units of English (Band 3) excluding English Studies.

**Architectural Design**
*Course prerequisites:* Any 2 units of English (Band 3) excluding English Studies.
*Recommended studies:* Mathematics Standard 2 or Mathematics Advanced.

**Arts**
*Areas of study:* Art history and theory; creative writing; criminal justice; digital media production; drama; environmental humanities; gender studies; history; Indigenous studies; Islam-West relations; journalism; Languages: Chinese, French*, German*, Indonesian*, Italian, Japanese, Korean*, Modern Greek*, Russian* and Spanish; literary studies; medical humanities; politics, security and international studies; popular culture; psychology; strategic communication; screen studies; social justice; sociology.
*Via cross institutional study*

*Course prerequisites:* Any 2 units of English (Band 3) excluding English Studies.

**Biomedical Science**
*Course prerequisites:* Any 2 units of English (Band 3) excluding English Studies.
*Assumed knowledge:* Mathematics Advanced plus one of Biology, Chemistry or Physics.

**Business**
*Areas of study:* Accounting, Asian business, Asian engagement, behavioural science, business analytics, economics, employment relations, event management, finance, financial planning, government and international relations, human resource management, innovation and entrepreneurship, international business, logistics and supply chain management, management, marketing, real estate and property development, sport management, sustainable business, taxation, tourism management.

*Course prerequisites:* Any 2 units of English (Band 3) excluding English Studies.

**Child, Youth and Family Practice**
*Course prerequisites:* Any 2 units of English (Band 3) excluding English Studies.

**Communication and Journalism**
*Course prerequisites:* Any 2 units of English (Band 3) excluding English Studies.

**Computer Science**
*Areas of study:* Data science and artificial intelligence, software development.

*Course prerequisites:* Any 2 units of English (Band 3) excluding English Studies.
*Assumed knowledge:* Mathematics Advanced.

**Construction Management (Hons)**
*Course prerequisites:* Any 2 units of English (Band 3) excluding English Studies plus Mathematics Standard 2 or Mathematics Advanced (Band 3) or Mathematics Extension 1 or Mathematics Extension 2.

**Counselling**
*Course prerequisites:* Any 2 units of English (Band 3), excluding English Studies.

**Criminology and Criminal Justice**
*Course prerequisites:* Any 2 units of English (Band 3) excluding English Studies.

**Design**
*Areas of study:* Immersive design, interaction design, interior and spatial design, product design, visual communication design.

*Course prerequisites:* Any 2 units of English (Band 3) excluding English Studies.
Education

Areas of study: Primary education, secondary education.
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies plus one of Mathematics Standard 2, Mathematics Advanced, Mathematics Extension 1 or Mathematics Extension 2 (Band 3), plus non-academic entry requirements.
For Primary (selected in second year): Any 2 units of science (Band 3).
For Secondary (selected in second year): Students select teaching areas that they have successfully studied (at Band 3) in their senior schooling. For the mathematics teaching area: Mathematics Advanced or Mathematics Extension 1 or Mathematics Extension 2.
For biology, chemistry or physics teaching areas: Biology, Chemistry or Physics respectively.

This program meets registration requirements for the Queensland College of Teachers. Applicants wishing to obtain registration in NSW will need to ensure that they meet the NSW Education Standards Authority registration requirements. For further information, visit educationstandards.nsw.edu.au.

Engineering (Hons)

Areas of study: Civil, electrical and electronic, mechanical, software.
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies, Mathematics Advanced.
Recommended studies: One of Physics, Chemistry, Mathematics Extension 1 or Mathematics Extension 2.

Environmental Science

Areas of study: Ecology and conservation, environmental management, soil and water science, urban environments.
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.
Assumed knowledge: Mathematics Standard 2 or Mathematics Advanced.
Recommended studies: One of Biology, Chemistry, Physics or Mathematics Advanced.

Exercise Science

Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.
Assumed knowledge: One of Biology, Chemistry, Physics or Mathematics Advanced.

Government and International Relations

Areas of study: International relations, politics and public policy.
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.

Health Science

Areas of study: Communications and media, environmental health, environmental toxicology, information technology, non-major options also available.
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.
Assumed knowledge: One of Biology, Chemistry, Physics or Mathematics Advanced.

Human Services

Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.

Industrial Design

Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.
Assumed knowledge: Mathematics Standard 2 or Mathematics Advanced.

Information Technology

Areas of study: Information systems, networks and security, software development.
Assumed knowledge: Any 2 units of English (Band 3) excluding English Studies, Mathematics Standard 2 or Mathematics Advanced.

Intelligent Digital Technologies

Areas of study: Internet of Things (IoT) and robotics, programming for visualisation and entertainment
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.
Assumed knowledge: Mathematics Advanced.

International Tourism and Hotel Management

Areas of study: Hospitality, tourism management. Second majors: Asian engagement, behavioural science, business analytics, economics, employment relations, event management, human resource management, innovation and entrepreneurship, logistics and supply chain management, management, marketing, real estate and property development, sport management.
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.

Languages and Linguistics

*Via cross institutional study
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.

Laws (Hons)

Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.

Laws (Hons) (Combined)

The following combined Laws courses are available:
- Laws (Hons)/Arts
- Laws (Hons)/Business
- Laws (Hons)/Criminology
- Laws (Hons)/Environmental Science
- Laws (Hons)/Psychological Science
- Laws (Hons)/Government and International Relations

Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.
Assumed knowledge: For Laws (Hons)/Environmental Science: Mathematics Standard 2 or Mathematics Advanced.
Recommended studies: For Laws (Hons) Environmental Science: One of Biology, Chemistry or Physics.
Marine Science
Areas of study: Coastal management, coastal oceanography, marine chemistry, marine ecology.
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.
Assumed knowledge: Mathematics Standard 2 or Mathematics Advanced.
Recommended studies: At least one of Biology, Chemistry or Physics.

Medical Laboratory Science
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.
Assumed knowledge: Mathematics Advanced plus one of Biology, Chemistry or Physics.

Nursing
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.

Nutrition and Dietetics
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.
Assumed knowledge: Biology, Chemistry, Mathematics Advanced.

Pharmacology and Toxicology
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.
Assumed knowledge: Mathematics Advanced or Mathematics Extension 1 or Mathematics Extension 2 plus one of Biology, Chemistry or Physics.

Pharmacy
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.
Assumed knowledge: Mathematics Advanced or Mathematics Extension 1 or Mathematics Extension 2 plus one of Biology, Chemistry or Physics.

Psychological Science
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.

Psychology (Hons)
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.

Public Health
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.

Science
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.
Assumed knowledge: Mathematics Standard 2 or Mathematics Advanced.
Recommended studies: One of Biology, Chemistry or Physics.

Social Science
Areas of study: Communication and social change, economics, environmental sustainability, global security threats, media, politics in Asia, social justice.
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.

Social Work
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.

Sport Development
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.
Assumed knowledge: One of Biology, Chemistry, Physics, Mathematics Standard 2 or Mathematics Advanced.

Urban and Environmental Planning
Course prerequisites: Any 2 units of English (Band 3) excluding English Studies.
Recommended studies: Mathematics Standard 2 or Mathematics Advanced.

Combined degrees
If you intend to undertake combined degrees, check the prerequisites, assumed knowledge and recommended studies for both degrees. Contact the University for further details.

- Arts/Business
- Business/Data Science
- Business/Government and International Relations
- Communication and Journalism/Business
- Communication and Journalism/Government and International Relations
- Criminology and Criminal Justice/Information Technology
- Design/Business
- Engineering (Honours)/Business
- Engineering (Honours)/Computer Science
- Engineering (Honours)/Environmental Science
- Engineering (Honours)/Data Science
- Engineering (Honours)/Industrial Design
- Engineering (Honours)/Information Technology
- Engineering (Honours)/Science
- Environmental Science/Business
- Environmental Science/Data Science
- Exercise Science/Business
- Exercise Science/Psychological Science
- Government and International Relations/Criminology and Criminal Justice
- Human Services/Criminology and Criminal Justice
- Information Technology/Business
- International Tourism and Hotel Management/Business
- Psychological Science/Criminology and Criminal Justice
- Psychological Science/Mental Health Practice
- Psychological Science/Mental Health Practice
- Psychological Science/Mental Health Practice
- Psychological Science/Mental Health Practice
- Psychology/Counselling
- Science/Arts
- Science/Business
- Science/Data Science
- Science/Information Technology
- Sport Development/Business
- Urban and Environmental Planning/Science
Recommended studies: Completion of NSW HSC (or equivalent) with a minimum Band 2 in English Standard or English EAL/D and Mathematics Standard 2.

Additional selection criteria: Interview.

Recommended studies: Completion of NSW HSC (or equivalent) with a minimum Band 2 in English Standard or English EAL/D and Mathematics Standard 2.

Additional selection criteria: Interview.

Recommended studies: Completion of NSW HSC (or equivalent) with a minimum Band 2 in English Standard or English EAL/D and Mathematics Standard 2.

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Additional selection criteria: Interview.

Recommended studies: Completion of NSW HSC (or equivalent) with a minimum Band 2 in English Standard or English EAL/D and Mathematics Standard 2.

Additional selection criteria: Interview.
Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

Accounting
Areas of study: Accounting, auditing, business law, economics, financial management.
Course prerequisites: Any 2 units of English (min. standard required).

Agribusiness
Areas of study: Accounting, agribusiness, business, economics, management, marketing.
Course prerequisites: Any 2 units of English (min. standard required).

Agriculture
Areas of study: Agribusiness, agricultural biotechnology, agricultural marketing, agricultural science, agriculture, agronomy, animal and plant biology, plant and animal production, soil science.
Course prerequisites: Any 2 units of English (min. standard required).

Animal and Veterinary Biosciences
Areas of study: Animal and plant biology, animal biotechnology, animal breeding, animal health, animal science, animal welfare, biochemistry, biology, genetics, microbiology, molecular and cell biology, nutrition and feed production, plant and animal production, veterinary science, zoology.
Course prerequisites: Any 2 units of English (min. standard required).

Arts
Areas of study: Accounting, agribusiness, biomedical science, history, heritage and environment, legal studies, psychology, society, culture and social change, writing and literature.
Course prerequisites: Any 2 units of English (min. standard required).

Biological Sciences
Areas of study: Animal and plant biology, biochemistry, biosciences, biotechnology, botany, ecology, environmental management, genetics, human biology, microbiology, molecular biology, physiology, zoology.
Course prerequisites: Any 2 units of English (min. standard required).
Biomedical Science
Areas of study: Biochemistry, biomedical science, biosciences, cell and molecular biology, chemistry, health, medical science, pharmacology.
Course prerequisites: Any 2 units of English (min. standard required).

Biomedical Science (Medical)
Areas of study: Anatomy, biochemistry, biomedical science, biosciences, cell and molecular biology, chemistry, health, medical science, pharmacology, pre-medicine.
Course prerequisites: Any 2 units of English (min. standard required).

Business
Areas of study: Accounting, economics, finance, management, marketing.
Course prerequisites: Any 2 units of English (min. standard required).

Business/Arts
Areas of study: Accounting, economics, English, finance, history, management, marketing, sociology.
Course prerequisites: Any 2 units of English (min. standard required).

Civil Engineering (Hons)
Areas of study: Civil engineering.
Course prerequisites: Any 2 units of English plus Mathematics Advanced or Mathematics Extension 1 or Mathematics Extension 2 (min. standards required).

Commerce
Areas of study: Accounting, economics, financial management, management, marketing.
Course prerequisites: Any 2 units of English (min. standard required).

Criminology
Criminology/Laws
Areas of study: Criminology, law.
Course prerequisites: Any 2 units of English (min. standard required).

Education
Areas of study: Primary education, secondary education.
Course prerequisites: Any 2 units of English, any 2 units of mathematics (min. standards required).

Educational Studies
Areas of study: Business, curriculum studies, humanities, psychology, special education and student welfare.
Course prerequisites: Any 2 units of English (min. standard required).

Engineering Honours (Industrial)
Areas of study: Engineering (industrial).
Course prerequisites: Any 2 units of English plus Mathematics Advanced or Mathematics Extension 1 or Mathematics Extension 2 (min. standards required).

Health Sciences
Areas of study: Health and sustainability, health promotion, health, wellbeing and performance, human physiology and anatomy, public health, rehabilitation counselling.
Course prerequisites: Any 2 units of English (min. standard required).

Information Technology
Areas of study: Big data, computer applications, computer networks, database systems, information technology, information systems, information systems management, multimedia authoring, object-oriented development, project management, software development, software engineering, systems and software engineering, systems design and development, web applications programming, website development.
Course prerequisites: Any 2 units of English (min. standard required).

International Business
Areas of study: Asian studies, economics, financial management, international business, language, management, marketing, tourism and hospitality.
Course prerequisites: Any 2 units of English (min. standard required).

Laws
Areas of study: Law.
Course prerequisites: Any 2 units of English (min. standard required).

Media and Communication
Areas of study: Journalism, media industries, public relations, sport journalism.
Course prerequisites: Any 2 units of English (min. standard required).

Nursing (Pre-Registration)
Areas of study: Nursing.
Course prerequisites: Any 2 units of English (min. standard required).

Occupational Therapy (Hons)
Areas of study: Anatomy and physiology, health sciences, mental health, occupational therapy.
Course prerequisites: Any 2 units of English (min. standard required).

Paramedic Practice with Honours
Areas of study: Paramedicine.
Course prerequisites: Any 2 units of English plus two of Biology, Chemistry, Mathematics Advanced, Physics or Personal Development, Health and Physical Education (PDHPE) (min. standards required).

Physiotherapy (Hons)
Areas of study: Anatomy, health sciences, physiology physiotherapy.
Course prerequisites: Any 2 units of English, plus two of Biology, Chemistry, Mathematics Advanced, Physics or Personal Development, Health and Physical Education (PDHPE) (min. standards required).
Psychological Science
Areas of study: Behavioural science, neuroscience, psychological science, psychology.
Course prerequisites: Any 2 units of English (min. standard required).

Psychology (Hons)
Areas of study: Behavioural science, neuroscience, psychology.
Course prerequisites: Any 2 units of English (min. standard required).

Social Work (Hons)
Areas of study: Human services, psychology, social work, sociology.
Course prerequisites: Any 2 units of English (min. standard required).

Speech Pathology (Hons)
Areas of study: Anatomy, health sciences, physiology, speech pathology.
Course prerequisites: Any 2 units of English plus one of Biology, Chemistry, Mathematics Advanced, Physics or Personal Development, Health and Physical Education (PDHPE) (min. standards required).

Let’s Chat on UAC Digital
uac.edu.au/uacdigital
Webinars for students, parents and careers advisers
Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

Advertising and Media
Advertising and Media (Dip)
Areas of study: Campaign thinking, copywriting, creative process, digital design, foundations of marketing, media landscape, positive psychology, research and insight, social media strategy, the business of advertising, video production.

Business
Areas of study: Business accounting, business finance, business fundamentals, business law, digital business communications, entrepreneurship, foundations of marketing, leadership and change management, positive psychology, project management, research and insight.
Recommended studies: Any 2 units of English, Mathematics Advanced.

Entrepreneurship
Event Management
Public Relations
Sports Business
Travel and Tourism
Recommended studies: Any 2 units of English, Mathematics Advanced.

Digital and Social Media Marketing (Dip)
Areas of study: Creative process, digital design, digital marketing strategy, foundations of marketing, introduction to digital and social media marketing, social media strategy, written communications.
Recommended studies: Visual Arts, Design and Technology, Business Studies, any 2 units of English.

Digital Media
Digital Media (Dip)
Areas of study: Design thinking, digital design, digital visualisation, ICT, interaction design, story and narrative, positive psychology, research and insight, social media strategy with specialisation options in digital marketing, visual content creation and interactive design, video production.

Journalism
Journalism (Dip)
Areas of study: Data journalism, feature writing, foundations of news, investigative reporting, media history and ethics, media law, news research, podcasting, professional news practice, radio, reporting government, video and mobile journalism (mojo).
Recommended studies: Any 2 units of English.

Business
Fashion
Food, Lifestyle & Travel
Music
Sports
Photo
Recommended studies: Any 2 units of English.
Additional selection criteria: Interview.
Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

Actuarial Studies
Areas of study: Analysis of mortality and population-based rates, contingent payments, mathematics of finance, probability and statistics, professional standards and practice.
Assumed knowledge: Mathematics Extension 1.
For the Macquarie Co-operative Education program: Mathematics Extension 2 (Band E4).
Recommended studies: Mathematics Extension 2.

Ancient History
Areas of study: Ancient Egyptian and Near East archaeology; ancient languages (Ancient Greek, Ancient Hebrew, Coptic, Hieroglyphic Egyptian, Latin); cultural heritage and public history; introduction to archaeology; material culture and museum studies; myths and magic in the ancient world; societies and cultures of early Egypt and the ancient Near East through to classical Greece and Rome, late Antiquity, Judaism and early Christianity, and the medieval and Byzantine periods; state formation of Egypt and the Near East.
Recommended studies: Ancient history.

Applied Finance
Areas of study: Corporate finance, derivative pricing, financial economics, financial modelling, portfolio management, risk management.
Assumed knowledge: Mathematics Advanced.
Recommended studies: Mathematics Extension 1.

Archaeology
Areas of study: Ancient Egyptian and Near East archaeology; Ancient Greece; archaeology of death and burial, cultural heritage and public history, field methods of archaeology, lab methods of archaeology, material culture and museum studies, societies and cultures of Ancient Egypt, world archaeology.
Recommended studies: Ancient history.

Arts
Areas of study: Ancient history; anthropology; applied ethics; Chinese studies; creative writing; criminology; education; English; French and Francophone studies; gender studies; geography; German studies; Indigenous studies; international relations; Japanese studies; media, culture and communications; modern history; music studies; performing arts and entertainment industries; philosophy; politics; psychological science*; social justice; sociology; Spanish and Latin American studies.
* The study of psychological science does not lead to registration as a psychologist or to professional postgraduate training in psychology.
Recommended studies: For psychological science: Mathematics Advanced.

Biodiversity and Conservation
Areas of study: Conservation management, environmental management, evolution and ecology, genetics, plant and animal sciences.
Recommended studies: Mathematics Advanced, and one of Biology or Chemistry or Investigating Science.

Business Administration
Areas of study: Accounting, human resources, international business, marketing, organisational behaviour, strategic management.
Assumed knowledge: Mathematics Standard 2.
**Business Analytics**

**Areas of study:** Accounting, business information systems, business intelligence, computing, data management, data mining, database programming, database systems, demography, quantitative analysis, statistics, systems design.

**Assumed knowledge:** Mathematics Advanced.

**Recommended studies:** Mathematics Extension 1.

**Chiropractic Science**

**Areas of study:** Anatomy and histology, biochemistry, biology, chemistry, chiropractic science, medical microbiology and pathology, physics, physiology, research methodology.

**Recommended studies:** Biology, Chemistry, Mathematics Advanced, Physics.

**Clinical Science**

**Areas of study:** Anatomy, biochemistry, embryology, genetics and genomics, histology, human biology, immunology, medical microbiology, pathology, pharmacology, physics, physiology, professional skills and knowledge for working in healthcare and medical research settings, structural and functional neuroscience.

**Assumed knowledge:** Mathematics Advanced.

**Recommended studies:** Biology, Physics, English Advanced.

**Cognitive and Brain Sciences**

**Areas of study:** Attention, cognitive disorders and delusions, cognitive neuroscience, computational neuroscience, hearing and brain, human neuroimaging, memory, neuroscience, reading, research and experiment design, social robotics, statistics.

**Recommended studies:** Mathematics Advanced.

**Commerce**

**Areas of study:** Accounting, business analytics, business information systems, cyber security governance, economics, entrepreneurship, finance, human resource management, international business, management, marketing and consumer insights, marketing management.

**Assumed knowledge:** For business analytics, economics, finance: Mathematics Advanced. For accounting, business information systems, cyber security governance, entrepreneurship, human resource management, international business, marketing and consumer insights, marketing management: Mathematics Standard 2.

**Recommended studies:** For business analytics and finance: Mathematics Advanced. For business information systems and marketing and consumer insights: Mathematics Extension 1.

**Cyber Security**

**Area of study:** Applied cryptography, cybercrime, data privacy and information security, databases, digital forensics, ethical hacking, machine learning, networking, programming, secure application development, security management in practice and web technologies.

**Recommended studies:** Mathematics Extension 1 or Mathematics Extension 2, plus Information Processes and Technology and/or Software Design and Development.

**Economics**

**Areas of study:** Development, environmental, financial, international, health and labour economics; econometrics; economic policy; industrial organisation; macroeconomics; microeconomics.

**Assumed knowledge:** Mathematics Advanced.

**Education**

**Early Childhood Education**

**Recommended studies:** Any 2 units of mathematics.

**Primary Education**

**Recommended studies:** Any 2 units of mathematics.

**Secondary Education**

**Areas of study:** Accounting, ancient history, astronomy and astrophysics, biology, biomolecular sciences, chemistry, Chinese studies, earth and environmental sciences, economics, English, finance, French and Francophone studies, geography, German studies, human biology, human resource management, international business, Japanese studies, mathematics, modern history, physics, psychological science, Spanish and Latin American studies, statistical modelling.

**Recommended studies:** Successful completion of HSC study in your chosen teaching areas. For mathematics teaching: Mathematics Advanced, Mathematics Extension 1 or Mathematics Extension 2.

**Engineering (Hons)**

**Areas of study:** Civil engineering, electrical and electronic engineering, mechanical engineering, mechatronic engineering, software engineering.

**Assumed knowledge:** Mathematics Advanced (Band 4).

**Recommended studies:** Physics, plus Mathematics Extension 1 or Mathematics Extension 2.

**Environment**

**Areas of study:** Environmental management, environmental sciences.

**Recommended studies:** Earth and Environmental Science, Biology, Geography, Chemistry, Mathematics Advanced.

**Game Design and Development**

**Areas of study:** Computer games technology; computer graphics; computer networks; computer programming; critical games studies; game design; game development; digital media production; modelling and animation; screenwriting; software engineering; sound, image and interactive media; videogames; web design; web technology.

**Recommended studies:** Mathematics Extension 1 or Mathematics Extension 2, plus Information Processes and Technology and/or Software Design and Development.

**Human Sciences**

**Areas of study:** Human movement, public health: policy and promotion.

**Recommended studies:** Personal Development, Health and Physical Education (PDHPE), Mathematics Advanced.

**Information Technology**

**Areas of study:** Cybersecurity, data analytics, data science, information systems and business analysis, software technology, web and mobile app development.

**Recommended studies:** Mathematics Extension 1 or Mathematics Extension 2, plus Information Process and Technology and/or Software Design and Development.
International Studies
Areas of study: Chinese international studies, French and Francophone international studies, German international studies, Japanese international studies, Spanish and Latin American international studies.

Law
Areas of study: Administrative law, animal law, civil procedure, company law, competition and consumer law, contracts, criminal law and procedure, environmental law, equity (including trusts), ethics and professional responsibility, evidence, family law, federal and state constitutional law, human rights, Indigenous peoples and the law, international dispute settlement, media law, property, torts.

Linguistics and Language Sciences
Areas of study: Child and adult language acquisition, development of language in the brain, forensic speech science, hearing disorders, Indigenous languages, relationships between language and society, speech and language disorders.

Marketing and Media
Areas of study: Australian media; brand management; business and creative arts management; digital marketing; integrated marketing communications; marketing fundamentals; marketing research; media cultures; professional writing; public relations; radio, screen and digital media production; social marketing; social media marketing.
Assumed knowledge: Mathematics Standard 2.
Recommended studies: Mathematics Advanced.

Media and Communications
Areas of study: Interactive design; journalism and non-fiction writing; online media, podcasting and radio; public relations and social media; screen practice and production.

Medical Sciences
Areas of study: Anatomy and physiology, genomics and medical informatics, infectious disease and biosecurity, medicinal chemistry, neuroscience.
Recommended studies: Mathematics Advanced, Chemistry.

Music
Areas of study: Music business, musical creativity, music in a global context, music production, musical experimentation and innovation, musical literacies, song writing, sound cultures, vocal studies.

Planning
Areas of study: Demographics and social science, environmental science and management, geographical information systems, international development, planning law and governance, planning policy, social impact assessment, spatial science, tourism and heritage, urban design.

Professional Accounting
Areas of study: Auditing and assurance, business and corporations law, economic policies and regulations, finance, financial reporting, information systems, international accounting, management and control, professional issues, statistical analysis, sustainability issues, taxation.
Assumed knowledge: Mathematics Standard 2.
Recommended studies: For the Accounting Co-op program: Mathematics Advanced.

Psychology
Areas of study: Biopsychology and learning, cognition and perception, counselling and social relationships, emotion, health psychology, motivation, neuroscience, organisational psychology, personality and principles of psychological assessment, psychopathology, research design and statistics, social and developmental psychology.
Recommended studies: Mathematics Advanced.

Science

* Subject prerequisites: For astronomy and astrophysics, mathematics, physics, statistical modelling: Mathematics Advanced (Band 4).
Recommended studies: Mathematics Advanced, at least 2 units of science. For astronomy and astrophysics, mathematics, physics, statistical modelling: Physics. For mathematics, statistical modelling: Mathematics Extension 1 (Band E2) or Mathematics Extension 2.

Security Studies
Areas of study: Australian, regional and global strategy and security, counterterrorism, cybercrime and security, emerging security challenges, ethical practice, intelligence and counterintelligence, modern warfare, security policy analysis.

Social Science
Areas of study: Australian politics, Indigenous policy, poverty and global justice, public and social policy, social research, social science, sociology, urban economies.

Speech and Hearing Sciences
Areas of study: Commonalities and differences between the world’s languages; hearing and its disorders; how children and adults learn a second or other language; how language develops in children; how language is represented in the brain; how spoken language is produced, perceived and understood; the relationship between language and society; speech and language disorders.

Double Degrees
Double bachelor degrees involve studying two complementary or different degrees. Macquarie offers more than 50 single bachelor degrees, most of which can be combined in a double degree*. For more information, search for ‘double degrees’ at mq.edu.au.

* Some double degree exclusions apply.
Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

**Business**

**Areas of study:** Accounting, management, marketing and digital marketing.

**Information Technology**

**Networking**

**Areas of study:** Computer networks, including specialisation in cloud networks and software engineering, and major in cyber security.
Main headings indicate courses generally offered as bachelor degrees unless

Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

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Fine Arts

Areas of study: Art history and theory, ceramics, drawing, painting, photography, printmaking, sculpture.

Assumed knowledge: Visual Arts.

Additional selection criteria: Portfolio, interview.

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Read this first

- In addition to completion of the HSC (or equivalent), admission criteria for B Fine Art include interview and portfolio evaluation. For further information regarding portfolio requirements, visit nas.edu.au.
- The National Art School offers portfolio development with its short course program and also offers the NESA-endorsed HSC Intensive Studio Practice course for Year 11 Visual Arts students throughout NSW.
Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

**Animation**

**Animation (Bachelor and Assoc Deg)**

*Areas of study:* Advanced 3D modelling, development and implementation of 3D production pipelines, digital environments and technical art pipelines, lighting and rendering, modelling terminology and methods, texturing and shading, advanced 2D animation, development of user-friendly animation rigs, principles of character animation, body mechanics and facial animation, motion studies, posing, computer modelling, dynamic simulations and colour grading lighting, intermediate and advanced compositing, match moving, particle systems.

*Additional selection criteria:* Interview.

**Animation (Dip)**

*Areas of study:* 3D digital model creation, character rigging, design animation and digital visual effects, interpreting and responding to a design brief, production of 3D assets, staging and drawing, storyboards, visual design.

*Additional selection criteria:* Interview.

**Audio**

**Audio (Bachelor and Assoc Deg)**

*Areas of study:* Advanced sound for picture techniques, audio post-production team dynamics, creation and manipulation of the sonic environment of multimedia, advanced studio production techniques, mastery of tracks from recording through to production, sound aesthetics, studio production team dynamics.

*Additional selection criteria:* Interview.

**Audio Production (Dip)**

*Areas of study:* Assembly of small-scale digital recording system, digital technology, microphones, mixing and application of signal processors, music theory, musical forms and structure, operation of Digital Audio Workstation (DAW), sound recording.

*Additional selection criteria:* Interview.

**Music Production (Dip)**

*Areas of study:* Blending sounds, conducting a location recording, Digital Audio Workstation (DAW) transcription and operation, music genres and styles, music theory, technical language, understanding and recognition of key features of music, working to a brief, writing a production brief.

*Additional selection criteria:* Interview.

**Songwriting (Bachelor and Assoc Deg)**

*Areas of study:* Contemporary songwriting, music production practice, acoustic and electronic music, recording techniques, principles of sound, music and audio technology.

*Additional selection criteria:* Interview.

**Creative Industries**

**Screen and Media (Dip)**

*Areas of study:* 3D modelling, animation concept development, audio recording, audio editing, poster design, web design, screenwriting, video editing, title sequences, game design, game concept development and music production.

*Additional selection criteria:* Interview.

**Design and Visual Communication**

**Graphic Design and Visual Communication (Bachelor and Assoc Deg)**

*Areas of study:* Critical and creative thinking, design and layout, design for print media, fundamentals of drawing, pre-press, principles of design, typography.

*Additional selection criteria:* Interview.

**Graphic Design (Dip)**

*Areas of study:* Critical and creative thinking, design and layout, design for print media, fundamentals of drawing, pre-press, principles of design.

*Additional selection criteria:* Interview.
Film

Film (Bachelor and Assoc Deg)

Areas of study: Colour grading, compositing, directing, editing, film fundamentals, operation of film equipment, storytelling, producing, understanding the roles and responsibilities of film production crews.

Additional selection criteria: Interview.

Film (Dip)

Areas of study: Film fundamentals, operation of film equipment, storytelling, understanding the roles and responsibilities of film production crews.

Additional selection criteria: Interview.

Games Development

Games Development (Bachelor and Assoc Deg)

Areas of study: Advanced game design, applied mathematics, foundations of 3D graphics, game audio, game engine architecture, games as media, games technology, level development, psychology of play, programming, tools development.

Additional selection criteria: Interview.

Augmented and Virtual Reality (Dip)

Areas of study: Augmented reality (AR) technology use, creative problem solving, critical reflection, haptic technologies, human-computer interaction (HCI), mixed reality (MR) technology use, rapid prototyping, scripting, virtual reality (VR) technology use.

Additional selection criteria: Interview.

Game Development (Dip)

Areas of study: Differences between digital and analogue games, game construction, game functionality, instructional design, methods for construction of functional games, principles of spatial layout, programmatic solutions, visual communication techniques, writing Technical Design Documents (TDD).

Additional selection criteria: Interview.
Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course. Arts (Dip)

Areas of study: Arts, criminology and criminal justice, education, international studies, interpreting and translation.

Business Administration (Dip)

Areas of study: Hospitality management, international business, management, marketing.

Engineering (Dip)

Areas of study: Computing, electrical engineering, material science, mathematics, mechanical engineering, physics.

Assumed knowledge: Mathematics Extension 1. If not, students can enrol in equivalent units to acquire this knowledge.

Information Technology (Dip)

Areas of study: Business information systems, data management, digital media, programming, software design, systems design.

Media and Communication (Dip)

Areas of study: Advertising, cross cultural communication, digital media, international communication, journalism, national and global media, public relations, social media.
Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

**Art and Design**
Areas of study: 3D studies, art theory, curating, digital art and design, drawing, painting, printmaking, sculpture.
Recommendations: Visual Arts.
Additional selection criteria: Interview, portfolio.

**Arts**
Areas of study: Creative writing, cultural studies, digital media, history, politics and international relations.
Assumed knowledge: English Advanced.

**Biomedical Science**
Areas of study: Anatomy, biochemistry, human physiology, immunology, microbiology, neuroscience.
Recommendations: Mathematics Advanced plus at least one of Biology, Chemistry or Physics.

**Business and Enterprise**
Areas of study: Accounting, aviation management, business analytics, entrepreneurship and innovation, financial services.
Assumed knowledge: Mathematics Advanced, any 2 units of English.
Recommendations: One or more of Business Studies, Economics, Information Processes and Technology or Legal Studies.

**Business (Dip)**
Recommendations: Business Studies or Economics.

**Civil Construction Engineering (Assoc Deg, Dip)**
Areas of study: Computer-aided design and drafting, construction materials, site safety.
Recommendations: Mathematics Advanced plus Chemistry and/or Physics.

**Clinical Sciences (Osteopathic Studies)**
Areas of study: Human anatomy and physiology, structure and function of the muscular and nervous systems.
Recommendations: Biology plus Chemistry or Mathematics Advanced.

**Community Welfare**
Areas of study: Children and young people, health and disability, Indigenous studies.
Assumed knowledge: Any 2 units of English.

**Contemporary Music**
Areas of study: Contemporary music composition, performance, songwriting or production.
Assumed knowledge: Competency on a musical instrument, basic music theory.
Recommendations: Music 1 or Music 2 or Music Extension.
Additional selection criteria: Audition/interview.

**Creative Writing (Assoc Deg)**
Areas of study: Experimental writing, journalism, life writing, poetry, writing for stage and screen, writing for young adults.
Assumed knowledge: English Advanced.
Recommendations: English Extension 1 or English Extension 2.

**Digital Media**
Areas of study: Creative writing, digital design, digital marketing, journalism, music and technology, screen media, visual culture.
Assumed knowledge: English Advanced.
Recommendations: English Extension 1 or English Extension 2.

**Education/Teaching**
Areas of study: Early childhood, primary (K–6), secondary, technology education.
There are no prerequisites or assumed knowledge, but see NESA requirements on page 11.
Additional selection criteria: Non-academic requirements.
**Engineering**
Areas of study: Civil engineering, coastal systems engineering, mechanical engineering.
Recommended studies: Mathematics Advanced plus Chemistry and/or Physics.

**Environmental Systems**
Areas of study: Environmental stewardship, fauna and flora conservation, land and water management, regenerative agriculture.
Recommended studies: Biology, Chemistry, Earth and Environmental Science, Geography, Mathematics Advanced.

**Forest Systems**
Areas of study: Biology, ecology, environmental studies, forestry studies, plant physiology, soil processes, wood science.
Recommended studies: Biology and/or Chemistry, Earth and Environmental Science, Mathematics Advanced.

**Health (Dip)**
Recommended studies: Biology and/or Chemistry.

**Hotel Management**
Areas of study: Accommodation operations, food and beverage, management, professional practice.
Recommended studies: Business Studies and/or Hospitality, any 2 units of English.
Additional selection criteria: Interview.

**Hotel Management (Dip)**
Recommended studies: Business Studies and/or Hospitality, any 2 units of English.
Additional selection criteria: Interview.

**Indigenous Knowledge**
Areas of study: Aboriginal health care, community and land management, Indigenous knowledge and research.
Recommended studies: Any 2 units of English.

**Information Technology**
Areas of study: Business analytics, networks and cyber security, software development, user experience.
Assumed knowledge: Mathematics Advanced.
Recommended studies: Information Processes and Technology, any 2 units of English.

**Information Technology (Assoc Deg)**
Areas of study: Applications development, database systems, digital media, programming, systems analysis and design, web development.
Assumed knowledge: Mathematics Advanced.
Recommended studies: Information Processes and Technology, any 2 units of English.

**Law (Assoc Deg)**
Areas of study: Conveyancing, paralegal studies.

**Laws**
**Laws (Double Degrees)**
- Arts/Laws
- Business and Enterprise/Laws
- Psychological Science/Laws
Recommended studies: For Laws: English Advanced, Legal Studies. For the other area of study: Refer to the relevant entry.

**Legal and Justice Studies**
Areas of study: Australian politics, conveyancing, legal systems and processes.

**Marine Systems**
Areas of study: Biology, chemistry, coastal marine ecosystems, ecology, environmental issues.
Recommended studies: Biology and/or Chemistry, Mathematics Advanced.

**Midwifery**
Areas of study: Anatomy and physiology, midwifery theory and practice, primary health care, psychosocial sciences, women’s health.
Assumed knowledge: Any 2 units of English, Mathematics Advanced plus Chemistry or Biology.
Recommended studies: English Extension 1 or English Extension 2.

**Nursing**
Areas of study: Biological sciences, professional areas, social sciences.
Assumed knowledge: Any 2 units of English, any 2 units of mathematics.
Recommended studies: One or more of Chemistry, Biology or Physics.

**Occupational Therapy**
Areas of study: Biomedical science, Indigenous health, professional areas, social sciences.
Recommended studies: Any 2 units of English.

**Psychological Science**
Areas of study: Analytical problem-solving, applied skills, interpreting research findings, scientific principles, statistical methods, testing and assessment.
Recommended studies: English Advanced, Mathematics Advanced, Biology.

**Regenerative Agriculture**
Areas of study: Human ecology, planning of rural landscapes, regenerative agriculture, regenerative strategies and soil management, soil processes.
Recommended studies: Mathematics Advanced, Chemistry, Biology, Geography.
Science

**Areas of study:** Biology, chemistry, environmental solutions, mathematics.

**Recommended studies:** Biology, Chemistry, Mathematics Advanced.

Science (Dip)

**Recommended studies:** Biology, Chemistry, Mathematics Advanced.

Social Work

**Areas of study:** Child protection, cross-cultural work, mental health practice, social sciences, social work practice.

**Assumed knowledge:** Any 2 units of English.

Speech Pathology

**Areas of study:** Audiology, cultural competency, multi-modal communication neurology, phonetics and linguistics, principles of evidence-based practice.

**Assumed knowledge:** English Advanced.

**Recommended studies:** Biology.

Sport and Exercise Science

**Areas of study:** Education, exercise science, nutrition.

**Recommended studies:** Any 2 units of English, any 2 units of mathematics, one or more of Biology, Chemistry, Physics, Personal Development, Health and Physical Education (PDHPE).

Double Degrees

Refer to the assumed knowledge and recommended studies for both components of the double degrees.

- Arts/Laws
- Business and Enterprise/Arts*
- Business and Enterprise/Laws*
- Exercise Science and Psychological Science*
- Psychological Science/Laws
Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

**Business courses**

**Business**

**Entrepreneurship**

**Event Management**

**Marketing**

**Sports Management**

**Areas of study:** Accounting, business and law, business fundamentals, customer experience management, digital marketing trends, economics, ethics and sustainability, events policy and strategy, identifying consumer behaviour, international business strategy, organisational creativity and innovation, public relations management, sports tourism, strategic marketing planning, understanding people and organisations.

**Business**

**Areas of study:** Business fundamentals, customer experience management, ethics and sustainability, identifying consumer behaviour, understanding people and organisations.

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**Business Information Systems**

**Areas of study:** App web design and development, cyber security, information systems for business, principles of programming, professional ethics, system analysis and design.

**Recommended studies:** Mathematics Standard (Band 2) or Mathematics Advanced (Band 2) or Mathematics Extension 1 (Band E1) or Mathematics Extension 2 (Band E1).

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**Business Information Systems (Dip)**

**Areas of study:** Business communications, data and networking, project management and planning.

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**Commerce**

**Areas of study:** Accounting, business communications, business law, economic, finance, leadership and professional practice, management, quantitative analysis.

**Recommended studies:** Mathematics Standard (Band 2) or Mathematics Advanced (Band 2) or Mathematics Extension 1 (Band E1) or Mathematics Extension 2 (Band E1).

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**Event Management (Dip)**

**Areas of study:** Business fundamentals, customer experience management, event concepts and design, event planning and management, events policy and strategy, organisational creativity and innovation, understanding people and organisations.

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**Marketing (Dip)**

**Areas of study:** Business fundamentals, business to business marketing, customer experience management, digital marketing trends and development, identifying consumer behaviour, integrated marketing communications, marketing and audience research, organisational creativity and innovation, strategic marketing planning, understanding people and organisations.
Health courses

Applied Social Science
Counselling
Community Services
Areas of study: Applied counselling, case management and program development, community development, community services, counselling, counselling for grief and loss, health and wellbeing, ethics and professional practice, interpersonal communication, human development, human rights and social advocacy, mediation and conflict management, protection of children, social policy, relationship counselling, social research methods.

Counselling & Communication Skills (Dip)
Areas of study: Applied counselling, counselling and communication skills, health and wellbeing, interpersonal communication, management and ethical principles, mental health in the community social and emotional wellbeing.

Health & Wellbeing (Dip)
Areas of study: Active lifestyle promotion, body systems and disease, corporate health, disease prevention, health promotion, human nutrition, leisure, social and emotional wellbeing, sport and fulfilling lives for older people, understanding health.

Health Science
Clinical Nutrition
Naturopathy
Western Herbal Medicine
Areas of study: Biochemistry, biological foundations, botany, clinical assessment, complementary medicine foundations, evidence-based practice, food science, food as medicine, herbal pharmacology, herbal material medica, herbal therapeutics, human structure & function, human systems & pathophysiology, nutrition, nutritional therapeutics.

Health Science (Dip)
Areas of study: Biological foundations, clinical assessment, complementary medicine foundations, foundations of public health, human structure & function, human systems & pathophysiology, pre-clinical studies.

Nutrition
Nutrition (DIP)
Areas of study: biological foundations, food as medicine, food science, human nutrition, human structure & physiology, lifespan nutrition, nutrition and society, nutritional biochemistry, foundations of public health.

Sport Development (Dip)
Areas of study: Athlete health and wellbeing, coaching practices, essentials of sports marketing, event management, high performance training and injury management principles, sports management.

Hospitality courses

Business
Business (Dip)

Hospitality Management
Tourism Management
Areas of study: Accommodation management, accounting, economics, entertainment and leisure management and tourism, gastronomy, human resources, introduction to hospitality, marketing, project management, resort and spa management, strategic management, tourism and events, tourism theory and practice.

Culinary Management
Areas of study: Catering management, food health and safety, hospitality law, kitchen operations, menu planning, professional cookery, restaurant management, sales and marketing strategy.

Nursing courses

Nursing
Areas of study: Administer and monitor medications, health assessment, human biology and disease, self care, sociology of health and illness, structure and function of human body.

Billy Blue College of Design at Torrens University Australia

3D Design and Animation
3D Design and Animation (Dip)
Areas of study: 2D asset creation, 3D asset creation, animation principles, beyond the creative industries, design context, design studio 1&2.

Branded Fashion Design
Areas of study: Design context, design studio 1&2, fashion illustration, fashion studio practice, fashion vs clothing, introduction to fashion technical drawing, introduction to shape and form.

Branded Fashion Design (Dip)
Areas of study: Design context, fashion illustration, fashion studio practice, fashion vs clothing, introduction to branded fashion technical drawing, introduction to shape and form.

Communication Design
Areas of study: Design and typographic fundamentals, moving image and 3D design and production, packaging and branding, publishing and media.

Design (Dip)
Areas of study: Design context, design studio 1&2, drawing for concept development, fashion illustration, ideas and innovation in design, publishing and media, work integrated learning.

Film and Video Design
Film and Video Design (Dip)
Areas of study: Beyond the creative industries, camera and capture, design context, design studio 1&2, motion design, psychology of the moving image.
Game design and development
Areas of study: 2D asset creation, 3D asset creation, design context, design studio, game design principles, game foundation principles.

Game Design and Development (Dip)
Areas of study: 2D asset creation, 3D asset creation, design context, design process, game principles, game production.

Graphic Design (Dip)
Areas of study: Design foundations, finished art, form and insight, interaction design, motion design, portfolio and professional practice, publishing and media, symbols and branding, typography, visual language of design.

Interior Design
Commercial
Areas of study: Interior design practice, modelling for spatial projects, spatial environment design, systems and documentation, ideas and innovation in design, design studio 1&2, the culture of design, design context.

Residential
Areas of study: Interior design practice, modelling for spatial projects, spatial environment design, systems and documentation, ideas and innovation in design, design studio 1&2, the culture of design, design context.

Interior Design and Decoration (Dip)
Areas of study: Design studio, design process, commercial design, construction and CAD, design drawing, graphic communication, interior built environment, materials and finishes, product knowledge, spatial environment design.

Photography and photo Imaging (Dip)
Areas of study: Camera and capture, commercial photography, digital imaging, domestic portraiture, folio, light and lighting, media and documentary, motion design, post-production, professional practice, visual language of photography.

Software Engineering (Artificial Intelligence)
Areas of study: Algorithms and data structures, concepts in AI, game programming, introduction to software engineering, mathematics, microservices architecture.

Software Engineering (Game Programming)
Areas of study: 2D game programming, algorithms and data structure, computer architecture and operating systems, computer graphics, introduction to software engineering, networking and database systems.

Software Engineering (Dip)
Areas of study: Algorithms and data structures, concepts in AI, game programming, introduction to software engineering, mathematics, microservices architecture.

UX and Web Design
UX and Web Design (Dip)
Areas of study: design context, design studio, interaction design, Javascript fundamentals, typography.

Blue Mountains International Hotel Management School at Torrens University Australia

Business International Hotel and Resort Management
Areas of study: Accounting, business law, cross-cultural studies, food and beverage management and control, industry practicum, international hospitality industry, research and academic skills, management and leadership, sales and marketing.

Combined courses

Business and design
- Business/ Branded Fashion Design
- Business/ Communication Design
- Business/ Interior Design (Commercial)
- Business/ Interior Design (Residential)
- Business/ Digital Media (Interaction Design)
- Business/ Digital Media (Film and Video)
- Business/ Digital Media (3D Design and Animation)

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Business and design
- Business/ Branded Fashion Design
- Business/ Communication Design
- Business/ Interior Design (Commercial)
- Business/ Interior Design (Residential)
- Business/ Digital Media (Interaction Design)
- Business/ Digital Media (Film and Video)
- Business/ Digital Media (3D Design and Animation)
Building and Construction Management

**Areas of study:** Building and construction management, building materials, building processes, built design, management, negotiation, quantity surveying, supervision techniques.

The Built Environment

**Additional selection criteria:** Students may be considered for entry based on portfolio submission and/or interview.

Architecture

**Areas of study:** Architecture design, architecture history and theory, built design, digital production, technology and sustainability, urban built environment.

Interior Architecture

**Areas of study:** Architecture design, digital design, human interaction with interior spaces, interior architecture, interior environments, urban built environment.

Landscape Design

**Areas of study:** Architecture design, landscape architecture, public and private outdoor design, urban and regional spaces, urban built environment.

Business

Entrepreneurship and Innovation

**Areas of study:** Business start-ups, entrepreneurial management, human resources management, Indigenous entrepreneurship, innovation, marketing.

Human Resources Management

**Areas of study:** Human resource management, organisational behaviour, workplace law.

International Business

**Areas of study:** Economic development, global e-business, international business, international marketing.

Management

**Areas of study:** Entrepreneurial management, human resources, public sector management, sustainable business futures, workplace law.

Marketing

**Areas of study:** Consumer behaviour, digital marketing, international marketing, marketing management, relationship marketing, services management.
Services Management
Areas of study: Business models and value creation, consumer behaviour, service management, service systems and wellbeing.

Sport Management
Areas of study: High performance sport, sport stakeholder engagement and leadership; Innovation, sponsorship, and marketing; sport competitions and events; sport law, governance, and policy.

Business (Dip)
Areas of study: Accounting, business, finance, law, management, marketing.

Business Informatics
Areas of study: Business intelligence systems, cloud computing, corporate strategy and IT governance, cyber security, data science, enterprise systems, information security, Internet of Things, social informatics.

Recommended studies: ACT: English T (Major), Mathematical Methods T (Major)/Specialist Mathematics T (Major) NSW: English Advanced, Mathematics Advanced.

Commerce
Accounting
Areas of study: Auditing, corporate law, finance, financial and management accounting, information systems, tax law.

Recommended studies: ACT: English T (Major), Mathematical Methods T (Major)/Specialist Mathematics T (Major) NSW: English Advanced, Mathematics Advanced.

Accounting and Finance
Areas of study: Auditing, finance, financial and management accounting, law, systems theory.

Recommended studies: ACT: English T (Major), Mathematical Methods T (Major)/Specialist Mathematics T (Major) NSW: English Advanced, Mathematics Advanced.

Business Economics
Areas of study: Professional economics.

Recommended studies: ACT: English T (Major), Mathematical Methods T (Major)/Specialist Mathematics T (Major) NSW: English Advanced, Mathematics Advanced.

Finance and Banking
Areas of study: Business finance, financial institutions and markets, investments, risk management.


Financial Planning
Areas of study: Business law, investments, personal financing, retirement planning.


Communication and Media
Additional selection criteria: Students may be considered for entry based on portfolio submission and/or interview.

Corporate and Public Communication
Areas of study: Campaign strategy and planning, communication and media studies crisis and issues management, digital and social media, media relations, multimedia content creation, public affairs, public relations, reputation management, stakeholder engagement, visual communication basics.

Journalism
Areas of study: Communication studies, content creation, data journalism, digital communication, digital curation, editorial decision making, mobile reporting, media studies, multiplatform journalism (audio, video, online, and social media), social media production.

Marketing Communication
Areas of study: Communication studies, cross-platform digital communication, marketing communication, media engagement, media studies, strategic and brand development.

Sports Media
Areas of study: Audio, communication studies, digital communication, match and event reporting, media studies, multiplatform sport journalism, online and social media production, public relations, radio and TV studio presenting, sports broadcasting, video, visual and audio studies.

Communication (Dip)
Areas of study: Communication studies, corporate and public communication, journalism, marketing communication, sports media.

Creative Industries - TAFE Queensland

Applied Fashion
Areas of study: Brand contextualisation, design, fashion globalisation, manufacturing and pattern cutting, sustainable and ethical practices.

Additional selection criteria: Additional to the normal admission requirements, students must also have a successful portfolio application. If you have completed a qualification from TAFE Queensland you may be eligible for direct entry into this course without a portfolio application.

Acting and Performance
Areas of study: Acting, voice and body techniques, animating, dramaturgy, entrepreneurial skills, musical skills, performance making skills, performance projects, performance theory, performance writing, screen and TV studies, theatre directing, theatre history and theory.

Additional selection criteria: Additional to the normal admission requirements, students must also have a successful interview and portfolio.

Contemporary Music Practice
Areas of study: Commercial music performance, contemporary musicianship, screen music, song writing, stylistic techniques and production, synthesis and sampling.

Additional selection criteria: Additional to the normal admission requirements, students must also have a successful audition. If you have completed a qualification from TAFE Queensland or Music Industry College, you may be eligible for direct entry into this course without an audition.

Drama and Performance
Areas of study: Animating, community engagement, dramaturgy, entrepreneurial skills, introduction to acting, voice and body techniques, musical skills, performance making skills, performance projects, performance theory, performance writing, theatre directing, theatre history and theory.

Visual Arts
Areas of study: 2D media and 3D forms; art history and contemporary art; curating and art communities; figure/portrait and landscape/environment.

Additional selection criteria: Additional to the normal admission requirements, students must also have a successful interview. If you have completed a qualification from TAFE Queensland you may be eligible for direct entry into this course without an interview.
Industrial Design
Areas of study: Communication skills, design, design manufacturing, digital manipulation, digital techniques, fabrication, industrial design, materials and production processes, product development.
Recommended studies: ACT: Mathematical Methods T (Major)/Specialist Mathematics T (Major), English T (Major).
NSW: Mathematics Advanced, English Advanced.
Additional selection criteria: Students may be considered for entry based on portfolio submission and/or interview.

Interactive Design
Areas of study: Building human-centric interaction systems, design, digital environments, digital product design, digital products, digital systems, media platforms, technology, web development.
Recommended studies: ACT: Mathematical Methods T (Major)/Specialist Mathematics T (Major), English T (Major).
NSW: Mathematics Advanced, English Advanced.
Additional selection criteria: Students may be considered for entry based on portfolio submission and/or interview.

Visual Communication Design
Areas of study: Colour theory, design culture, digital communication, environmental graphics, graphic design, infographics, layout design, logo design, packaging design, print-based design, publication design, typography, visual branding design, visual communication design.
Recommended studies: ACT: English T (Major) NSW: English Advanced.
Additional selection criteria: Students may be considered for entry based on portfolio submission and/or interview.

Design (Dip)
Areas of study: Architecture, building and construction management, industrial design, interaction design, interior architecture, landscape architecture, visual communication design.
Recommended studies: ACT: English T (Major), Mathematical Methods T (Major)/Specialist Mathematics T (Major) NSW: English Advanced, Mathematics Advanced.

Digital Design - TAFE Queensland
Digital Media
Areas of study: 3D modelling, animation and motion capture, augmented reality, digital photography, sound design, visual effects.

Game Design
Areas of study: 3D modelling, animation and motion capture, augmented reality, game art, game design, game production, virtual reality.

Visual Communication Design
Areas of study: Communication studies, design, environmental graphics, information organisation, layout design, logotype design, new technologies, packaging and digital design, print based design, publication design, typography, visual communication design, web based design.
Recommended studies: ACT: Mathematical Methods T (Major)/Specialist Mathematics T (Major), English T (Major).
NSW: Mathematics Advanced, English Advanced.
Engineering

Areas of study: Network and software engineering, robotics and artificial intelligence.

Recommended studies: ACT: Mathematical Methods T (Major)/Specialist Mathematics T (Major) NSW: Mathematics Advanced, English Advanced.

Network and Software Engineering

Areas of study: Electronics, information technology, network engineering, software engineering.

Recommended studies: ACT: Specialist Maths (Recommended) (T) or Mathematical Methods (T) NSW: Mathematics Advanced, English Advanced.

Software Engineering

Areas of study: Cloud computing and Internet of Things, cybersecurity, data science, mobile technologies, robotics and artificial intelligence, software engineering, system software, technology and engineering management.

Recommended studies: ACT: Mathematical Methods T (Major)/Specialist Mathematics T (Major) NSW: Mathematics Advanced, English Advanced.

Event and Tourism Management

Areas of study: Event and tourism management.

Exercise Physiology and Rehabilitation*

Areas of study: Exercise physiology, exercise prescription, exercise science.

Recommended studies: ACT: Biology T (Major), or Human Biology T (Major) or Exercise Science T (Major), Mathematical Methods T (Major) NSW: Biology, Mathematics Advanced.

Health Science

Human Movement

Areas of study: Anatomy and physiology, biomechanics, exercise physiology, exercise programming, health science, human physical performance.

Nutrition Studies

Areas of study: Health science, nutrition practice and food science, physiology.

Recommended studies: ACT: Biology T (Major), Mathematical Methods T (Major) NSW: Biology, Mathematics Advanced.

Health (Dip)

Areas of study: Health science, human movement, human nutrition, nutrition studies, psychology.

Human Nutrition

Areas of study: Human nutrition.

Recommended studies: ACT: Chemistry T (Major), Mathematical Methods T (Major) NSW: Chemistry, Mathematics Advanced.

Information Technology and Systems

Business Informatics

Areas of study: Business intelligence systems, cloud computing, corporate strategy and IT governance, cyber security, data science, enterprise systems, information security, Internet of Things, social informatics.

Information Technology

Areas of study: Cloud computing and Internet of Things, cybersecurity, data science, information technology, robotics and artificial intelligence, software systems architecture, web design and programming.

Recommended studies: ACT: Mathematical Methods T (Major)/Specialist Mathematics T (Major) NSW: Mathematics Advanced, English Advanced.

Information Technology (Dip)

Areas of study: Information systems, software engineering.

Justice Studies

Areas of study: Advocacy and communication, justice studies, law reform.

Law

Law (Combined)

The University of Canberra offers a range of combined courses with Law. For more information, visit canberra.edu.au.

Requirements: For Law: None.
For the other areas of study: Refer to the relevant entry requirements.

Medical Radiation Science*

Medical Imaging

Areas of study: Medical imaging, medical radiation science.

Recommended studies: ACT: Biology T (Major), Physics T (Major), Mathematical Methods T (Major)/Specialist Mathematics T (Major) NSW: Biology, Chemistry, English Advanced, Mathematics Advanced.

Midwifery*

Areas of study: Midwifery practice theory, midwifery professional theory, midwifery theory.

Recommended studies: ACT: Biology T (Major), Chemistry T (Major), English T (Major), Mathematical Methods T (Major)/Specialist Mathematics T (Major) NSW: Biology, Chemistry, English Advanced, Mathematics Advanced.

Additional selection criteria: Supplementary application form, CV.

Network and Software Engineering (Dip)

Areas of study: Network and software engineering.

Nursing*

Areas of study: Nursing inquiry, professional nursing practice.

Recommended studies: ACT: Biology T (Major), Chemistry T (Major), English T (Major), Mathematical Methods T (Major)/Specialist Mathematics T (Major) NSW: Biology, Chemistry, English Advanced, Mathematics Advanced.

Occupational Therapy*

Areas of study: Occupational therapy.

Recommended studies: ACT: Mathematical Methods T (Major), English T (Major) plus Biology T (Major) or Human Movement T (Major) NSW: Mathematics Advanced, English Advanced plus Biology or Personal Development, Health and Physical Education (PDHPE).
Pharmacy*
Areas of study: Pharmacotherapeutics, pharmaceutical science, pharmacy practice.
Recommended studies: ACT: Mathematical Methods T (Major) plus Biology T (Major) or Human Movement T (Major), plus Chemistry T (Major) or Physics T (Major) NSW: Mathematics Advanced plus Biology or Personal Development, Health and Physical Education (PDHPE) plus Chemistry or Physics.

Physiotherapy*
Areas of study: Physiotherapy interventions, physiotherapy practice.
Recommended studies: ACT: Mathematical Methods T (Major) plus Biology T (Major) or Human Movement T (Major), plus Chemistry T (Major) or Physics T (Major) NSW: Mathematics Advanced plus Biology or Personal Development, Health and Physical Education (PDHPE), plus Chemistry or Physics.

Politics and International Relations
Areas of study: Politics and international relations.
All students must satisfy a security check for the national security internships.

Psychology
Areas of study: Cognition and learning, developmental psychology, motivation and emotion, personality and individual differences, physiological psychology, psychological science, psychopathology, research methods and statistics, social psychology.

Science
Biomedical Science
Areas of study: Genetics and genomics, human biology, integrated studies of disease, microbiology, pathobiology, physiology.
Recommended studies: ACT: Mathematical Methods T (Major), Biology T (Major) and/or Chemistry T (Major) NSW: Mathematics Advanced, Biology and/or Chemistry.

Environmental Science
Areas of study: Applied ecology, earth science, environmental chemistry, environmental genetics, integrated environmental management, sustainable landscapes, water science.
Recommended studies: ACT: Mathematical Methods T (Major), Biology T (Major) and/or Chemistry T (Major) NSW: Mathematics Advanced, Biology and/or Chemistry.

Forensic Science
Areas of study: Analytical chemistry, crime scene investigation, environmental and forensic genetics, forensic biology, forensic chemistry, forensic science, forensic toxicology and drug analysis, microbiology, pharmacology and toxicology.
Recommended studies: ACT: Mathematical Methods T (Major), Biology T (Major) and/or Chemistry T (Major) NSW: Mathematics Advanced, Biology and/or Chemistry.

Medical Science
Areas of study: Advanced physiology, analytical chemistry, anatomy and physiology, biological chemistry, genetics and genomics, human biology, immunology, integrated studies of disease, microbiology, pathobiology.
Recommended studies: ACT: Chemistry T (Major) and Mathematical Methods T (Major) NSW: Chemistry and Mathematics Advanced.

Science (Dip)
Areas of study: Biology, chemistry, physical science, science.

Social and Economic Policy
Economic Policy
Areas of study: Behavioural science, economics.

Sociology
Areas of study: Behaviour science, political and social theory, sociology.

Sport and Exercise Science*
Areas of study: Exercise science, sports science.
Recommended studies: ACT: Biology T (Major) or Human Biology T (Major), or Exercise Science T (Major), Mathematical Methods T (Major) NSW: Biology, Mathematics Advanced.

Vision Science*
Areas of study: Optical and vision sciences.
Recommended studies: ACT: Mathematical Methods (Major), Chemistry (Major), and Physics (Major), NSW: Mathematics Advanced, Physics, and Chemistry.

Combined degrees
If you intend to undertake combined degrees check the assumed knowledge and recommended studies for both degrees. For more information on the approved combined degrees, contact the University of Canberra or visit canberra.edu.au.

* All students to this course are required to undergo a National Police Check and obtain a Working with Vulnerable People registration card prior to undertaking clinical experience. All students are also required to present an immunisation history and first aid certificates, including CPR.
Assumed knowledge: Any 2 units of English, any 2 units of mathematics.
Recommended studies: Agriculture, Biology and/or Chemistry.

For Agricultural technology: Mathematics Advanced.

Agriculture/Business

Areas of study: Accounting, agribusiness, agriculture, animal and plant production, international business, marketing.
Assumed knowledge: Any 2 units of English, any 2 units of mathematics.
Recommended studies: Agriculture, Biology and/or Chemistry.

Animal Science

Areas of study: Canine and equine science, livestock production, wildlife management.
Assumed knowledge: Any 2 units of English, Chemistry, Mathematics Advanced.
Recommended studies: Biology.

Arts

Areas of study: Ancient history, ancient near east, archaeology, Australian history, Chinese (Mandarin), classical languages (Greek/ Latin), criminology, English, French, German, history, human geography, Indigenous studies, Indonesian, international history, Islamic studies, Italian, Japanese, linguistics, music, peace studies, philosophy, physical geography, political and international studies, psychology, screen and media studies, sociology, Spanish, studies in religion, theatre and performance, writing.
Assumed knowledge: Any 2 units of English.

Business

Areas of study: Accounting, agribusiness, business analytics and informatics, economics, finance, human resource management, international business, management, marketing.
Assumed knowledge: Any 2 units of English.
Recommended studies: Any 2 units of mathematics.

Computer Science

Areas of study: Data science, software development.
Assumed knowledge: Mathematics Advanced.
Recommended knowledge: Mathematics Extension 1.
Criminology
Areas of study: Criminal justice; justice and Indigenous people; justice, politics and society; policing and corrections.
Assumed knowledge: Any 2 units of English.

Economics
Areas of study: Applied econometrics, economic development, economics, environmental analysis and policy.
Assumed knowledge: Any 2 units of English.
Recommended studies: Any 2 units of mathematics.

Education
Early Childhood and Primary
Assumed knowledge: Any 2 units of English and any 2 units of mathematics (Band 4 for primary teaching).
Recommended studies: Minimum of three Band 5 (or E3) HSC results, including one in English; Band 4 in mathematics.
See course entry requirements at my.une.edu.au/courses for full details.

K–12 Teaching
Assumed knowledge: Any 2 units of English and any 2 units of mathematics.
Recommended studies: Minimum of three Band 5 (or E3) HSC results, including one in English; Band 4 in mathematics.

K–6 Teaching
Special and Inclusive Education (Primary)
Assumed knowledge: Any 2 units of English; any 2 units of mathematics (Band 4 for primary teaching).

Secondary Arts
Secondary Mathematics
Secondary Science
Secondary Music (Distance only)
Assumed knowledge: Any 2 units of English, any 2 units of mathematics.
For Secondary Science: Any 4 units of science.
For Secondary Music: Any 2 units of music.
Additional selection criteria: Admission to B Education (Secondary Music) requires:
– a performance standard equivalent to Grade 6 of the Australian Music Examinations Board demonstrated via audition or music performance qualification, and
– a musical theory standard equivalent to Grade 4 of the Australian Music Examinations Board demonstrated via music performance qualifications or successful completion of a musical theory test, and
– a personal statement assessed by the discipline.
See course entry requirements at my.une.edu.au/courses for full details.

Environmental Science
Areas of study: Conservation ecology, envirobusiness, natural resource management, remediation and restoration.
Assumed knowledge: Chemistry, Mathematics Advanced, any 2 units of English.
Recommended Studies: Biology.

GeoScience
Areas of study: Applied geophysics, digital geological mapping by GIS, environmental geology, geochemistry, palaeontology, petrology, resource geology, sedimentology and structural geology.
Assumed knowledge: Any 2 units of English, Chemistry, Mathematics Advanced.
Recommended studies: Biology and/or Physics.

Historical Inquiry and Practice
Areas of study: Ancient world, ancient near east, Australian history, economic history, European history, history, religious history, society and culture, writing and communication.
Assumed knowledge: Any 2 units of English.
Recommended studies: Any 2 units of history.

International Studies
Areas of study: Global politics and peace, international law, languages and culture, societies.
Assumed knowledge: Any 2 units of English.

Languages
Areas of study: Chinese (Mandarin), French, German, Indonesian, Italian, Japanese, Spanish.
Assumed knowledge: Any 2 units of English.

Languages and International Business
Areas of study: Chinese (Mandarin), French, German, Indonesian, Italian, international business, Japanese, Spanish.
Assumed knowledge: Any 2 units of English.
Recommended studies: Any 2 units of mathematics.

Law
Law (Double Degrees)
For the other area of study: Refer to the relevant entry
– Agriculture/Law
– Arts/Law
– Business/Law
– Computer Science/Law
– Criminology/Law
– Economics/Law
– Environmental Science/Law
– Science/Law.

Media and Communication Studies
Areas of study: Media and culture, writing and publishing.
Assumed knowledge: Any 2 units of English.

Medicine Science and Doctor of Medicine
Areas of study: Medicine.
Recommended studies: Any 2 units of English.
Additional selection criteria: Direct University Joint Medical Program application form, University Clinical Aptitude Test (UCAT), Multiple Skills Assessment (interview), Personal Qualities Assessment.
The medical program is offered jointly by the University of Newcastle and the University of New England.
Music (Distance only)
Assumed knowledge: Any 2 units of English.
Recommended studies: Any 2 units of music.
Additional selection criteria: Admission to B Music requires:
– a performance standard equivalent to Grade 6 of the Australian Music Examinations Board demonstrated via audition or music performance qualification, and
– a musical theory standard equivalent to Grade 4 of the Australian Music Examinations Board demonstrated via music performance qualifications or successful completion of a musical theory test, and
– a personal statement assessed by the discipline.

Nursing
Assumed knowledge: Any 2 units of English, any 2 units of science.

Pharmacy with Honours
Assumed knowledge: Chemistry, Mathematics Advanced.
Recommended studies: Biology, Mathematics Extension 1 or 2.

Psychological Science
Assumed knowledge: Any 2 units of English.
Recommend studies: Any 2 units of mathematics.

Psychology
Assumed knowledge: Any 2 units of English.
Recommended studies: Any 2 units of mathematics.

Rural Science
Areas of study: Agricultural systems, animal and plant breeding, animal and plant nutrition, animal and plant physiology, biochemistry, cotton and grain production, farm management, horticultural science, meat science, pasture and crop agronomy, post-harvest technology, precision agriculture, sheep and wool science, soil science.
Assumed knowledge: Chemistry, Mathematics Advanced, any 2 units of English.
Recommended studies: Biology and/or Physics.

Science
Biomedical
Areas of study: Anatomy and physiology, biochemistry, biology, biotechnology, chemistry, genetics, immunology and haematology, microbiology, molecular and cellular biology, pathophysiology, physiology.
Assumed knowledge: Mathematics Advanced.
Recommended studies: Biology plus Chemistry and/or Physics.

Science
Areas of study: Animal science and veterinary studies, applied physics, archaeology, biochemistry/biotechnology, biodiversity, botany, chemistry, computational science, forensic science, genetics, geography, geoscience, mathematics, medical chemistry, microbiology, neuroscience, palaeobiology, physiology, psychology, zoology.
Assumed knowledge: Mathematics Advanced.
Recommended studies: Depending on degree subjects chosen, Biology, Chemistry and/or Physics.

Scientific Studies
Assumed knowledge: Any 2 units of English.

Social Science
Areas of study: Aboriginal perspectives, criminology, health management, organisational management, peace and developmental studies, political and international studies, psychology, social philosophy, sociology, sociolinguistics, urban and regional studies.
Assumed knowledge: Any 2 units of English.
Recommended studies: For Psychology major: Any 2 units of mathematics.

Social Work
Recommended studies: Any 2 units of English.

Sports and Exercise Science
Clinical Exercise Physiology
Exercise and Sports Science
Assumed knowledge: Any 2 units of mathematics, Personal Development, Health and Physical Education (PDHPE) and/or any 2 units of science.
Recommended studies: Chemistry and/or Biology.

Sustainability
Areas of study: Community engagement and development, cultural heritage management, environmental governance, environmental resilience, governance and regulation, water sustainability.
Assumed knowledge: Any 2 units of English.
Recommended studies: Any 2 units of mathematics.

Urban and Regional Planning
Areas of study: Architecture and urban design, economic planning, environmental and planning law, environmental planning, geography, geographic information systems and climate change, land use planning, natural resource management, planning practice, population studies, professional ethics, social planning, transport planning, urban and regional planning.
Assumed knowledge: Any 2 units of English.

Zoology
Areas of study: Animal behaviour, freshwater and marine ecology, animal physiology, molecular biology and genetics, conservation biology, herpetology, physical anthropology, entomology, environmental and comparative physiology, parasitology.
Assumed knowledge: Chemistry, Mathematics Advanced, any 2 units of English.
Recommended studies: Biology.

Combined Degrees
If you intend to undertake combined degrees, check the prerequisites, assumed knowledge and recommended studies for both degrees.
– Agriculture/Business
– Arts/Business
– Arts/Science
– Business/Economics.
Contact the University for further details.
Double degrees in Law are also offered. Refer to Law entry for details.

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Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

**Arts**

**Areas of study:** Ancient history; Chinese; creative and performing arts; education; English and writing; film, media and cultural studies; French; gender and sexuality studies; German; global Indigenous studies; history; human geography and the environment; information technology; Japanese; linguistics; politics and international relations; psychology studies; sociology and anthropology; studies of religion; violence studies; and writing studies.

Note: Areas of study are subject to change and not all are available on both campuses. A suite of minors and majors are available online.

**Recommended studies:** For psychology studies*: Mathematics Advanced. For all other majors: English Advanced.

*Psychology studies are not accredited by the Australian Psychology Accreditation Council.

**Biomedical Science**

**Areas of study:** Anatomy, bioinformatics, cell and molecular biology, experimental design and analysis, genetics and immunology, medical biochemistry, microbiology, neuroscience, nutritional science, pathophysiology, pharmacology, physiology.

**Assumed knowledge:** Mathematics Advanced, Chemistry, Physics, Biology.

**Biotechnology**

**Areas of study:** Biochemistry, bioethics, biotechnology, biotechnology finance and commercialisation, cell and molecular biology, DNA technology, microbiology, molecular genetics, reproductive physiology.

**Assumed knowledge:** Mathematics Advanced, Chemistry.

**Recommended studies:** Biology, Physics.

**Business**

**Areas of study:** Entrepreneurship and innovation, governance, human resource management, international business, leadership and management, marketing, policy and political economy, sports management and tourism management.

**Assumed knowledge:** Mathematics Advanced.
Business Analytics

Areas of study: AI for business, big data, business analytics, business intelligence, business modelling, data management, data visualisation and effective communication.

Assumed knowledge: Any 2 units of English, Mathematics Advanced.

Climate Science and Adaptation

Areas of study: Climate change and resource management, climate and energy, earth processes, environmental sustainability, human geography, river basin processes, spatial science, statistics, sustainable energy.

Assumed knowledge: Mathematics Advanced.

Coastal and Marine Science

Areas of study: Animal biology, biodiversity and conservation, coastal and surface processes, coastal infrastructure, environmental regulation, geography, politics and policy.

Assumed knowledge: Mathematics Advanced.

Commerce

Areas of study: Accounting, economics, finance.

Assumed knowledge: Mathematics Advanced.

Communication

Areas of study: Animation, communication, experience creation, media production, news and digital media, public relations and strategic communication, user experience (UX) design.

Assumed knowledge: Any 2 units of English.

Recommended studies: One or more of Biology, Chemistry, English Advanced, Earth and Environmental Science.

Computer Science

Areas of study: Majors: Computer systems and robotics, cyber security, data science, or software development. The program also includes courses in advanced programming techniques, algorithms, artificial intelligence and machine learning, compilers, computer graphics, computer networks, data mining, data security, databases and different programming languages, experimental and theoretical aspects in computer science, fundamentals of software development, human computer interaction, object-oriented technologies, operating systems, software verification, systems, theory of computation and web engineering.

Assumed knowledge: Mathematics Advanced (Band 5).

Recommended studies: Mathematics Extension 1.

Construction Management

Areas of study: Building information modelling, construction management, construction technology, environmentally sustainable development, estimating, information and communication technology, project management, quantity surveying and estimating, risk management.

Recommended studies: Any 2 units of English, Mathematics Advanced.

Criminology

Areas of study: Causes of crime, criminal behaviour, criminal justice institutions, legal studies, psychology, sociology, victimology.

Recommended studies: English Advanced.

Data Science

Areas of study: Data wrangling and visualisation, statistical modelling, programming, data security, applied artificial intelligence including machine intelligence, statistical inference, database and information management, data structures, algorithms, data mining, machine intelligence, business analysis

Recommended studies: Mathematics Extension 1.

Design (Architecture)

Areas of study: Architectural design, architectural history and theory, architectural technology, professional practice.

Recommended studies: Any 2 units of English and Modern History, plus one or more of Visual Arts, Design and Technology, Industrial Technology.

Development Studies

Areas of study: Cultures and citizenship, environmental sustainability, globalisation and economic development, urban and regional development.

Recommended studies: Any 2 units of English.

Education

Early Childhood and Primary

Areas of study: Aboriginal education, behaviour management, children’s learning and growth across the span of birth-12 years, ethics and professional codes of conduct, families and society, language and mathematical learning, policy and issues, programming and planning for children aged 0-5 years, psychology of learning and teaching, special education.

Assumed knowledge: HSC Band 5 results in a minimum of three subjects, one of which must be English; Band 4 in mathematics.

Recommended studies: Mathematics Advanced.

Primary

Areas of study: Primary teaching in all of the primary subjects including English; Mathematics; Science and Technology; Personal Development, Health and Physical Education; Creative Arts; and Human Society and its Environment; plus an in-depth study which can be in special education or one of the subjects listed above.

Assumed knowledge: HSC Band 5 results in a minimum of three subjects, one of which must be English; Band 4 in mathematics.

Secondary

Areas of study: Aboriginal studies, ancient history, biology, business studies, chemistry, computing information systems and software design, design and technology, drama, earth and environmental science, economics, English, food technology, geography, health and physical education, humanities, industrial technology engineering, industrial technology graphics and multimedia, information processes and technology, investigating science, languages (Chinese, French, German, Japanese), legal studies, mathematics, modern history, physics, science, society and culture, special education, STEM, studies of religion, teaching English as a second language, technology, textiles and design, visual arts.

Assumed knowledge: HSC Band 5 results in a minimum of three subjects, one of which must be English.

Engineering

Aerospace

Areas of study: Aerospace design and materials, aircraft operations and performance, avionics, embedded systems engineering, principles of flight, propulsion.

Assumed knowledge: Mathematics Advanced (Band 5), any 2 units of science (Physics or Chemistry preferred).
Chemical
Areas of study: Chemical engineering with specific courses in catalytic processing, coal and mineral processing, design of clean and economical processes, environmental processing and safety, fundamental process-engineering, liquids and gases, process control, project management and research, reactions and separations across solids.
Assumed knowledge: Mathematics Advanced (Band 5), any 2 units of science (Physics or Chemistry preferred).
Recommended studies: Mathematics Extension 1 plus Physics or Chemistry.

Civil
Areas of study: All of our Civil Engineering students complete courses in the three core civil specialisations of structural, water and geotechnical engineering, making them highly employable upon graduation. Areas of study include: Engineering design, fluid mechanics, geotechnical engineering, materials, pollution control, project and asset management, risk assessment, structural engineering, surveying, transportation engineering and water treatment, water resources engineering.
Assumed knowledge: Mathematics Advanced (Band 5).
Recommended studies: Mathematics Extension 1, any 2 units of science.

Computer Systems
Areas of study: Communication networks, computer architecture, computer engineering, digital systems design, distributed systems, electronics, embedded systems, engineering management and systems, programmable logic design, software engineering, systems design, web engineering.
Assumed knowledge: Mathematics Advanced (Band 5).
Recommended studies: Mathematics Extension 1, any 2 units of science.

Electrical and Electronic
Areas of study: Analog and digital communications, automatic control, computer engineering, electric energy systems, electric machines and power systems, electrical engineering design, electronics, engineering mathematics, physics, procedural programming, signals and systems.
Assumed knowledge: Mathematics Advanced (Band 5).
Recommended studies: Mathematics Extension 1, any 2 units of science.

Environmental
Areas of study: Biology, chemical engineering, chemistry, environmental planning and design, fluid mechanics, geotechnical engineering, land and water management, surface and groundwater pollutant transport, waste treatment, water engineering.
Assumed knowledge: Mathematics Advanced (Band 5).
Recommended studies: Mathematics Extension 1, any 2 units of science.

Mechanical
Areas of study: Advanced computer-aided engineering, bulk solids handling, design of machines and processes, engineering management and advanced materials, fluid mechanics, heat transfer, properties and uses of materials, thermodynamics.
Assumed knowledge: Mathematics Advanced (Band 5).
Recommended studies: Mathematics Extension 1, any 2 units of science.

Mechatronics
Areas of study: Advanced control design, autonomous systems, electronics design, embedded systems design, mechanical design and software design, robotics, sensors and actuators, vehicle dynamics.
Food Science and Human Nutrition

**Areas of study:** Biomedical science, chemistry, food analysis, food and nutrition, food product development, functional foods and health claims, macronutrients, micronutrients, nutrition in health and disease, plant and animal food products.

**Recommended studies:** Biology, Chemistry, Mathematics Advanced.

Global Indigenous Studies

**Areas of study:** Entrepreneurship and innovation, film, gender and sexuality studies, global indigenous studies, global Indigenous studies, governance, human geography and the environment, human resource management, human services, information technology, media and cultural studies, policy and political economy, sociology and anthropology, writing studies. Some selected majors are available fully online.

Information Technology

**Areas of study:** Major in either business technology, interactive media or systems development. The program also includes courses in advanced programming techniques, algorithms, artificial intelligence and machine learning, computer graphics and networks, databases, programming languages and data mining, data security, computer science, software development, human computer interaction, object-oriented technologies, operating systems, software verification, systems, theory of computation, web engineering.

**Assumed knowledge:** Any 2 units of English.

Laws (Combined)

- Arts/Laws
- Business/Laws
- Commerce/Laws
- Communication/Laws
- Development Studies/Laws
- Global Indigenous Studies/Laws
- Innovation and Entrepreneurship/Laws
- Science/Laws
- Social Science/Laws

**Assumed knowledge:** For Laws: None.

For other areas of study: Refer to the relevant entry.

Recommended studies: For Laws: None.

For other area of study: Refer to the relevant entry.

Mathematics

Mathematics (Advanced)

**Areas of study:** Applied mathematics, pure mathematics and statistics.

**Assumed knowledge:** Mathematics Advanced.

**Recommended studies:** Mathematics Extension 1.

Medical Radiation Science (Diagnostic Radiography)

**Areas of study:** Anatomy and physiology, clinical education, instrumentation, physics, radiation protection, research methodology.

**Assumed knowledge:** Any 2 units of English plus Mathematics Advanced or Physics.

Medical Radiation Science (Nuclear Medicine)

**Areas of study:** Anatomy, molecular imaging, nuclear medicine instrumentation and radiopharmacy, nuclear medicine theory, patient care, physiology, psychology, research methodology.

**Assumed knowledge:** Any 2 units of English plus Mathematics Advanced or Physics.

Medical Radiation Science (Radiation Therapy)

**Areas of study:** Anatomy, behavioural science, clinical methods, imaging and treatment, oncology, statistics and research methodology.

**Assumed knowledge:** Any 2 units of English plus Mathematics Advanced or Physics.

Medicine

The medical program is offered jointly by the University of Newcastle and the University of New England.

**Areas of study:** Clinical medical and surgical specialties (eg respiratory and cardiovascular medicine, cancer treatment, orthopaedics), community and public health, hospital based medicine, medical sciences, mental health, women’s and children’s health. Skills in research and the critical evaluation of evidence are also introduced.

**Recommended studies:** Any 2 units of English.

**Additional selection criteria:** Direct University Joint Medical Program application form, University Clinical Aptitude Test (UCAT), Multiple Skills Assessment (interview), Personal Qualities Assessment.

Midwifery

**Areas of study:** Antenatal care, care of the newborn baby, labour and birthing care, postnatal care.

**Assumed knowledge:** Any 2 units of English (Band 4), Mathematics Standard 2, Biology and/or Chemistry.

**Recommended studies:** English Standard.

Music

**Areas of study:** Composition, creative production, music in the creative industries, music research and communication, performance (instrument, voice), songwriting.

**Assumed knowledge:** Music 1 or demonstrated musical experience or qualification equivalent to Music 1 or AMEB (Grade 6 to 8 pass).

**Additional selection criteria:** Audition (performance), interview (oral assessment), application (written assessment).

Nursing

**Areas of study:** Aged care; human bioscience; mental health; primary, secondary and tertiary nursing.

**Assumed knowledge:** Any 2 units of English plus Mathematics Standard 2, Chemistry and/or Biology.

Nutrition and Dietetics

**Areas of study:** Basic and applied sciences, dietetic practice, food service and management, medical nutrition therapy, paediatric nutrition and dietetics, professional practice, public health nutrition, social sciences, statistics and research methodology.

**Recommended studies:** Chemistry.

Occupational Therapy

**Areas of study:** Anatomy and physiology, behavioural and occupational therapy, biomedical, mental health, occupational sciences, psychology, sociology and community development, statistics and research methodology.

**Recommended studies:** Biology, Mathematics Advanced, Chemistry.

Oral Health Therapy

**Areas of study:** Clinical treatment for children, the elderly, Indigenous Australians and special needs groups; communication; dental therapy; health promotion; human bioscience and anatomy; oral pathology; periodontology; radiography.

**Recommended studies:** Biology, Chemistry.
Pharmacy

Areas of study: Anatomy and physiology, chemistry, dosage formulation, drug design and discovery, epidemiology, first aid, mental health, pharmacotherapeutics.

Assumed knowledge: Mathematics Advanced (Band 5), English Advanced, Chemistry, Physics.

Recommended studies: Mathematics Extension 1.

Physiotherapy

Areas of study: Advanced anatomy and physiology, clinical physiotherapy studies, community health, health promotion, research methodology.

Assumed knowledge: English Advanced, Chemistry plus Physics or Biology.

Podiatry

Areas of study: Anatomy, biomechanics, physiology, podiatric medicine.

Assumed knowledge: Chemistry, Mathematics Advanced.

Psychological Science

Psychological Science (Advanced)

Areas of study: Clinical and abnormal behaviour, cognition and information processing, developmental psychology, neuroscience, perceptual processes and learning theory, psychopharmacology, research methodology, social psychology and personality, statistics.

Assumed knowledge: Mathematics Advanced.

Recommended studies: Biology.

Public and Community Health

Areas of study: Choose from eight interdisciplinary majors including: Environmental health, epidemiology and data sciences, global health, health promotion, health sociology and anthropology, integrated systems and health administration, social justice and health inequity, social marketing.

Recommended studies: Personal Development, Health and Physical Education (PDHPE), or Family and Community Studies.

Science

Science (Advanced)

Areas of study: You can choose to study from the following majors:

- Newcastle: Animal biology; biology; chemistry; chemistry of advanced materials; earth sciences; environmental and analytical chemistry; geography; geology; integrated geography; mathematics; medicinal and organic chemistry; physics; plant biology; psychology; statistics; sustainable resource management; water, climate and soil.

- Central Coast: Biodiversity; coastal, conservation, ecological and marine sciences; conservation; environmental remediation; psychology; sustainable resource management.

Assumed knowledge: Mathematics Advanced.

Recommended studies: Biology and/or Chemistry and/or Physics depending on major area of study.

Social Science

Areas of study: Criminology, global Indigenous studies, history, human geography and the environment, human resource management and industrial relations, human services, leisure and tourism management, linguistics, politics and international relations, psychology studies, sociology, anthropology.

Recommended studies: English Advanced. Other related subjects, such as Geography, Ancient or Modern History, Community and Family Studies, Society and Culture are recommended depending on the intended major.

Social Work

Areas of study: Aboriginal studies; law for social work; psychology; social policy and planning; social work ethics; sociology.

Recommended studies: English Advanced, Society and Culture, Community and Family Studies, languages.

Speech Pathology

Areas of study: Biomedical science; linguistics; neuroscience and head and neck anatomy; psychology; speech pathology.

Recommended studies: Biology, Chemistry, Mathematics Advanced, English Advanced.

Surveying

Areas of study: Cadastral engineering and construction, geodesy, geographic information systems, geomatics, hydrographic surveying, land management, laser scanning, photogrammetry, satellite positioning, spatial information systems and computing, town planning and valuation, water resources.

Assumed knowledge: Mathematics Advanced (Band 5).

Recommended studies: Mathematics Extension 1, any 2 units of science.

Visual Communication

Areas of study: Animation; experience creation; graphic communication and typography; illustration; interaction and user experience design; media production; visual communication design.

Recommended studies: One or more of Visual Arts, Design and Technology, Textiles and Design, Industrial Technology.

Combined programs

If you intend to undertake combined programs, check the prerequisites, assumed knowledge and recommended studies for both programs. Not all specialisations or majors within a program may be available within a combined program. Visit the University website for further details.

- Arts/Innovation and Entrepreneurship
- Arts/Science
- Business/Business Analytics
- Business/Commerce
- Business/Innovation and Entrepreneurship
- Commerce/Innovation and Entrepreneurship
- Criminology/ Psychological Science
- Data Science/ Mathematics
- Data Science/Computer Science
- Development Studies/ Business
- Development Studies/ Global indigenous Studies
- Development Studies/ Social Science
- Engineering/Business
- Engineering/Computer Science
- Engineering/Engineering Analytics
- Engineering/Mathematics
- Engineering/Science
- Engineering/Surveying
- Environmental Science and Management/ Business
- Food Science/Business
- Information Technology/ Business
- Mathematics/Computer Science
- Mathematics/Science
- Music/Arts
- Science/Innovation and Entrepreneurship
- Surveying/Business

Combined programs in Laws are also offered. Refer to Laws entry for details.
Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

**Arts**

**Areas of study:** Advertising, applied psychology, counselling, English literature, film and screen production, history, journalism, liberal arts, philosophy, politics and international relations, social justice, sociology, theatre studies, theology, writing.

**Recommended studies:** English Standard or English Advanced. **For a major in theatre studies:** Drama.

For a minor in mathematics: Mathematics Advanced.

**Arts (Politics and Journalism)**

**Areas of study:** Politics, democracy and governance in Australia, history of western civilisation, world politics, media and society, journalism theory and practice, radio, television and video, media and politics, public relations, media ethics and law, online newsroom.

**Recommended studies:** English Standard or English Advanced.

**Business Administration**

**Areas of study:** Business communication, consumer behaviour, innovation and entrepreneurship, leadership theory and practice, psychology of work, strategic management.

**Recommended studies:** Mathematics Advanced.

**Commerce**

**Areas of study:** Accounting, advertising, economics, finance, human resource management, management, marketing, public relations.

**Recommended studies:** Mathematics Advanced.

**Communications and Media**

**Areas of study:** Creative advertising, digital cultures, digital media production, feature writing, film and screen production, interactive media, journalism: theory & practice, media ethics & law, online newsroom, radio, screenwriting.

**Recommended studies:** English Standard or English Advanced.

**Education**

**Primary Education**

**Areas of study:** Academic skills; Australia and the world; curriculum pedagogy and assessment; dance and drama; English language & literacy; family and community partnerships in the early years or catholic teaching and history or research and enquiry in science education; foundational principles of teaching; the global citizen; health and physical education; inclusive education; mathematical understanding and fluency; mathematics & numeracy; learning & personal development; mathematics foundations and perspectives; music; professional engagement; reading and literacy in the early years; reading, viewing & listening; representing & speaking; science & technology; visual arts; working with Indigenous students; writing.

**Recommended studies:** Mathematics Advanced, English Standard or English Advanced.

**Secondary Education**

**Areas of study:** Academic skills; curriculum, pedagogy and assessment; foundation principles of teaching; inclusive education; learning and development; literacy, numeracy and ICT; professional engagement; teaching methods (junior), working with Indigenous students.

These courses are in addition to your choice of teaching area from: ancient history, business studies, drama, economics, English, legal studies, mathematics, modern history and studies of religion.

**Recommended studies:** English Standard or English Advanced. **For teaching English:** English Advanced.

**For teaching Mathematics:** Mathematics Advanced.
Laws
Laws (Combined)
- Laws/Arts
- Laws/Arts (Politics and Journalism)
- Laws/Commerce
- Laws/Communications and Media
- Laws/Philosophy
- Laws/Theology
Areas of study: Alternative dispute resolution, Australian tax law, bioethics and the law, canon law, civil procedure, commercial practices and ethics, constitutional law, contract law, corporations and partnerships, criminal law, entertainment law, environmental law, equity, evidence, family law, health law, human rights law, intellectual property law, law and religion, law in context, legal history, legal philosophy, legal research and writing, mining and petroleum law, property law, torts, trial advocacy, trusts.
For Laws/Arts: Law plus majors listed for Arts.
For Laws/Commerce: Law plus majors listed for Commerce.
Recommended studies: English Standard or English Advanced.

Combined degrees
If you intend to undertake combined programs, check the prerequisites, assumed knowledge and recommended studies for both programs. Not all specialisations or majors within a program may be available within a combined program. Visit the University website for further details.
- Commerce/Arts
- Commerce/Communications and Media
- Communications and Media/Arts
- Philosophy/Theology
Combined programs in Laws are also offered. Refer to Laws entry for details.

Nursing
Areas of study:
Aboriginal & Torres Strait Islander Peoples health; acute care; clinical therapeutics; chronic illness; communication; critical care nursing; ethics & law; human body; leadership & governance; mental health care; nursing practice; paediatric nursing; palliative care nursing; primary health care; perioperative nursing; professional practice; rehabilitation & palliation; rural & remote nursing; research for practice; sociology; transition to practice.
Recommended studies: Biology, English Standard, Mathematics Standard 2.

Philosophy
Areas of study:
Being & God; critical thinking, epistemology, faith & reason; history of philosophy; method & basic problems of philosophy; metaphysics; moral philosophy; natural law; philosophy of science; philosophy of the human person; political philosophy.
Recommended studies: English Standard or English Advanced.

Philosophy, Politics and Economics
Areas of study: Ancient philosophy; economics; introduction to world politics; macroeconomic theory and practice; microeconomic theory and policy; moral philosophy; philosophy of the human person; policy, democracy and governance in Australia; political philosophy; public policy and practice: the business of government; quantitative methods for business.
Recommended studies: English Standard or English Advanced, Business Studies, Economics.

Theology
Areas of study: Christian spirituality; christology; church history; ecclesiology/mariology; eucharist; foundations of catholic theology; liturgy; marriage & sexuality; metaphysics – theories of being & existence; method & problems of philosophy; moral theology; philosophy of the human person; sacraments; Sacred scripture; Old & New Testaments, Pentateuch, Prophets & Psalms, Synoptic Gospels, Johannine Literature, Writings of Paul; trinity.
Recommended studies: Studies of Religion II plus English Standard or English Advanced.
Architecture

Architecture and Environments

Areas of study: Architectural and environmental design, architectural history and theory, architectural sciences and technologies, digital architecture and communications, property and sustainability, urban design and planning.

Assumed knowledge: English Advanced, Mathematics Advanced.

Design in Architecture

Areas of study: Architectural communications, architectural design, architectural history and theory, architectural technologies, art workshops, environment and sustainability, professional practice.

Assumed knowledge: English Advanced, Mathematics Advanced.

Arts and Social Sciences

Arts

Dalyell Scholars

International and Global Studies

Languages

Media and Communications

Politics and International Relations

Areas of study: American studies; ancient Greek; ancient history; anthropology; Arabic language and cultures; archaeology; art history; Asian studies; biblical studies and classical Hebrew; Chinese studies; criminology cultural studies; digital cultures; diversity studies; econometrics; economic policy; economics; education; English; environmental, agricultural and resource economics; European studies; film studies; financial economics; French and francophone studies; gender studies; Germanic studies; Hebrew (modern); history; Indigenous studies; Indonesian studies; international comparative literary studies; international relations; Italian studies; Japanese studies; Jewish civilisation, thought and culture; Korean studies; Latin; linguistics; media studies; modern Greek studies; music; philosophy; political economy; politics; psychology; Sanskrit; social policy; socio-legal studies; sociology; Spanish and Latin American studies; studies in religion; theatre and performance studies; visual arts; writing studies.

Assumed knowledge: Depends on majors chosen. In most cases, where a first-year subject has a level of assumed knowledge, there is an alternative subject available with no knowledge assumed.

Advanced Computing

Areas of study: Computational data science, computer science, information systems, software development.

Course prerequisites: Mathematics Advanced (Band 4) or Mathematics Extension 1 (Band E3) or Mathematics Extension 2 (Band E3).

Assumed knowledge: Mathematics Extension 1.
**Early Childhood**

**Areas of study:** Child development and learning, education, learning studies (arts, health and wellbeing science, language, mathematics), professional studies.

**Primary**

**Areas of study:** Education and primary education.

**Engineering**

**Aeronaualic Biomedical**

**Chemical and Biomolecular**

**Civil**

**Dalyell Scholars**

**Electrical**

**Flexible first year**

**Mechanical**

**Mechatronic**

**Software**

**Space**

**Course prerequisites:** Mathematics Advanced (Band 4) or Mathematics Extension 1 (Band E3) or Mathematics Extension 2 (Band E3).

**Assumed knowledge:** Depends on first-year subjects chosen.

**Exercise and Sport Science**

**Exercise Physiology**

**Exercise and Sport Science**

**Areas of study:** Anatomy; biochemistry; biomechanics; learning and control of human movement; nutrition; physiology/exercise physiology and the application of these fundamental sciences to sport, exercise, ageing, rehabilitation, public health and research.

**Assumed knowledge:** Chemistry, Mathematics Advanced.

**Law (Combined)**

- Arts/Laws
- Commerce/Laws
- Economics/Laws
- Science/Laws

**Course prerequisites:** For Law combined with Commerce, Economics, Engineering Honours or Science: Mathematics Advanced (Band 4) or Mathematics Extension 1 (Band E3) or Mathematics Extension 2 (Band E3).

**Assumed knowledge:** For Law: English Advanced. For the other area of study: Refer to the relevant entry.
Liberal Arts and Science

Liberal Arts and Science

Areas of study: Major from Arts and Social Sciences or a major from Science, a sequence of subjects in Science (if an Arts major is chosen) or in Arts (if a Science major is chosen) and a sequence in the Liberal Studies stream (analytical thinking, communication, culture, ethics, scientific enquiry, society and global citizenship, technological literacy). For majors, see Arts and Social Sciences or Science.

Assumed knowledge: Depends on first-year major and subjects chosen.

Liberal Arts and Science (Extended)

Areas of study: In addition to the areas of study listed for Liberal Arts and Science, foundation academic studies and mathematics.

Additional selection criteria: Available to Aboriginal and Torres Strait Islander students only. Assessment may include an interview and personal statement.

Music education

Areas of study: Music education studies, plus a principal study in either a classical instrument, voice, jazz studies, drum set, historical performance, non-western instruments, composition, contemporary music practice, musicology

Course prerequisites: Band 5 in three HSC subjects (or equivalent) one of which must be English (English Standard or English Advanced).

Assumed knowledge: Music 2.

Additional selection criteria: Audition and/or interview.

Music

Areas of study: Composition, composition for creative industries, contemporary music practice, digital music and media, musicology, performance (historical, instrumental, jazz or vocal).


Additional selection criteria: Audition and/or interview.

Nursing

Areas of study: Child and adolescent health, chronic care, community healthcare, health and human biology, health policy, Indigenous health, mental health, palliative care, population health, professional practice.

Occupational Therapy

Areas of study: Biological sciences, occupational therapy, social sciences, theory and practice.

Recommended studies: Biology.

Pharmacy

Pharmacy (Honours)/Master of Pharmacy

Pharmacy and Management (Honours)/Master of Pharmacy Practice

Areas of study: Biology, chemistry, honours project, medicinal chemistry, pharmaceutical sciences, pharmaceutics, pharmacology, pharmacy and pharmacy practice. For pharmacy and management: As listed for pharmacy, plus business.

Course prerequisites: Mathematics Advanced (Band 4) or Mathematics Extension 1 (Band E3) or Mathematics Extension 2 (Band E3).

Assumed knowledge: Biology, Chemistry.

Recommended studies: Physics.

Physiotherapy

Areas of study: Biomechanics, exercise physiology, human anatomy and physiology, measurement of human performance, motor performance and learning, neuroscience, psychology, research design and statistics.

Assumed knowledge: Chemistry, Physics.

Recommended studies: Mathematics Advanced.

Project Management

Areas of study: Built environment, construction. Studies include complex project coordination, management data, organisational behaviour, people and change, project change, project control, project finance, psychology, quality management, risk management, statistics.

Course prerequisites: Mathematics Advanced (Band 4) or Mathematics Extension 1 (Band E3) or Mathematics Extension 2 (Band E3).

Assumed knowledge: Depends on major or units of study chosen.

Psychology

Areas of study: Psychology, psychological science.

Course prerequisites: Mathematics Advanced (Band 4) or Mathematics Extension 1 (Band E3) or Mathematics Extension 2 (Band E3).

Assumed knowledge: Depends on first-year subjects chosen.

Science

Areas of study: Agriculture; agroecosystems; anatomy and histology; animal and veterinary bioscience; animal health, disease and welfare; animal production; applied medical science; biochemistry and molecular biology; biology; cell and developmental biology; chemistry; computer science; data science; ecology and evolutionary biology; environmental science; environmental studies; financial mathematics and statistics; food and agribusiness; food science; genetics and genomics; geography; geology and geophysics; health; history and philosophy of science; human movement (Health stream only); immunology; immunology and pathology; infectious diseases; information systems; life sciences; marine science; mathematical sciences; mathematics; medical science; medicinal chemistry; microbiology; nanoscience and nanotechnology; neuroscience; nutrition and dietetics; nutrition science; pathology; pharmacology; physics; physiology; plant production; plant science; psychological science; quantitative life sciences; software development; soil science and hydrology; statistics; virology.

Scholars

Scholars: Mathematics Extension 1 (depends on major chosen).
Mathematical Sciences: Mathematics Extension 2. All students undertaking a science degree must take some study in mathematics.

Science (Extended)
Areas of study: In addition to the areas of study listed for Science, foundation academic studies and mathematics.
Additional selection criteria: Available to Aboriginal and Torres Strait Islander students only. Assessment may include an interview and personal statement.

Agriculture
Areas of study: Agriculture, including a major in animal production, plant production or soil science and hydrology; plus a second major from those offered for Science.
Course prerequisites: Mathematics Advanced (Band 4) or Mathematics Extension 1 (Band E3) or Mathematics Extension 2 (Band E3).
Assumed knowledge: Biology, Chemistry.

Animal and Veterinary Bioscience
Areas of study: Animal and veterinary bioscience plus a second major from those offered for Science.
Course prerequisites: Mathematics Advanced (Band 4) or Mathematics Extension 1 (Band E3) or Mathematics Extension 2 (Band E3).
Assumed knowledge: Biology, Chemistry.

Food and Agribusiness
Areas of study: Food science and a second major from: Accounting, agricultural and resource economics, banking, business analytics, business information systems, business law, economic policy, economics, finance, industrial relations and human resource management, international business, management or marketing.
Course prerequisites: Mathematics Advanced (Band 4) or Mathematics Extension 1 (Band E3) or Mathematics Extension 2 (Band E3).
Assumed knowledge: Biology, Other assumed knowledge depends on majors chosen.

Health
Areas of study: Health, a second major from those offered for Science.
Course prerequisites: Mathematics Advanced (Band 4) or Mathematics Extension 1 (Band E3) or Mathematics Extension 2 (Band E3).
Assumed knowledge: Biology. Other assumed knowledge depends on majors chosen.

Medical Science
Areas of study: Medical science including a major in anatomy, biochemistry, biology, cell pathology, genetics, histology, history and philosophy of science, immunology, infectious diseases, microbiology, molecular biology, pharmacology, physiology or psychology; plus a second major from those offered for Science.
Course prerequisites: Mathematics Advanced (Band 4) or Mathematics Extension 1 (Band E3) or Mathematics Extension 2 (Band E3).
Assumed knowledge: Biology, Chemistry.

Taronga Wildlife Conservation
Areas of study: Wildlife conservation plus a second major from those offered for Science.
Course prerequisites: Mathematics Advanced (Band 4) or Mathematics Extension 1 (Band E3) or Mathematics Extension 2 (Band E3).
Assumed knowledge: Biology.

Social Work
Areas of study: Social policy, social work, sociology.
Assumed knowledge: Depends on first-year subjects chosen.

Speech Pathology
Areas of study: Audiology, biomedical sciences, linguistics and language development, neurobiology, phonetics, psychology, research methods, sociology, specialist areas (aphasia, dysarthria, dyslexia, stuttering).
Recommended studies: English Advanced.

Veterinary Biology/Doctor of Veterinary Medicine
Areas of study: Animal diseases and pathology, animal husbandry, cell biology, chemistry, clinical and professional practice, pharmacology, veterinary anatomy and physiology, veterinary conservation biology, veterinary medicine, veterinary surgery.
Course prerequisites: Mathematics Advanced (Band 4) or Mathematics Extension 1 (Band E3) or Mathematics Extension 2 (Band E3).
Assumed knowledge: Biology, Chemistry.
Additional selection criteria: Statement of commitment to veterinary science.

Visual Arts
Areas of study: Visual arts specialisation.
Recommended studies: Design and Technology, Visual Arts.
Additional selection criteria: Portfolio.

Combined and Double Degrees
For combined degrees, see the course prerequisites, assumed knowledge and recommended studies for both degrees.

− Advanced Computing/Commerce
− Advanced Computing/Science
− Advanced Computing/Science (Health)
− Advanced Computing/Science (Medical Science)
− Arts/Laws
− Arts/Master of Nursing
− Arts/Doctor of Medicine
− Arts/Social Work
− Commerce/Laws
− Design in Architecture (Honours)/Master of Architecture
− Economics/Laws
− Engineering Honours/Arts
− Engineering Honours/Commerce
− Engineering Honours/Laws
− Engineering Honours/Project Management
− Engineering Honours/Science
− Engineering Honours/Science (Health)
− Pharmacy (Honours)/Master of Pharmacy Practice
− Pharmacy and Management (Honours)/Master of Pharmacy Practice
− Science/Laws
− Science/Doctor of Dental Medicine
− Science/Doctor of Medicine
− Science/Master of Mathematical Sciences
− Science/Master of Nursing
− Science/Master of Nutrition and Dietetics
− Science (Health)/Master of Nursing
− Science (Medical Science)/Doctor of Medicine
− Veterinary Biology/Doctor of Veterinary Medicine

Advanced Studies (Combined)
This is not a standalone degree. It may be taken in conjunction with:

− Arts
− Commerce
− Design Computing
− Education (Secondary)
− Economics
− Exercise and Sports
− Music
− Science
− Visual Arts.
Architecture

Areas of study: Architecture, architecture + urbanism history/theory, construction technology, design, design culture, design technology, ecodesign, environmental control, media, sustainability, thermal design.

Assumed knowledge: Mathematics Advanced, any 2 units of English.

Recommended studies: Design and Technology, Visual Arts.

Interior Architecture

Areas of study: Design history and theory, exhibition design, interior design to urban design, lighting design, performance design, professional practice and design technology, spatial communications.

Assumed knowledge: Any 2 units of English.

Recommended studies: Design and Technology, Visual Arts.

Landscape Architecture

Areas of study: Botany, design of landscapes in urban and rural contexts, ecology, graphic communications, hydrology, professional practice, research, sustainability.

Assumed knowledge: Mathematics Advanced, any 2 units of English.

Recommended studies: Design and Technology, Visual Arts, Geography, Earth and Environmental Science.

Biomedical Physics

Areas of study: Advanced medical device technology, applied electronics and interfacing, biomedical physics, bionanotechnology, cell biology and genetics, chemistry, human anatomy and physiology, human pathophysiology, imaging science, mathematical modelling for science, medical imaging technology, physics in action, quantum physics, solid-state science and nanodevices.

Assumed knowledge: Mathematics Advanced, any 2 units of science, any 2 units of English.

Recommended studies: Mathematics Extension 1, Physics.

Biomedical Science

Areas of study: Allergy, anatomy, autoimmunity, biochemistry, blood banks, blood tests, blood transfusions, cell biology, clinical microbiology, diabetes, diagnosis disease, epidemiology, genetic screening, genetics, haematology, histology, histopathology, immunity, immunodeficiency, immunology, infection, laboratory, molecular biology, parasitology, pathology, physiology, proteomics, research, serology, stem cell, transplantation.
**Assumed knowledge:** Mathematics Advanced, any 2 units of English, any 2 units of science.

**Recommended studies:** Chemistry, Mathematics Extension 1.

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### Biotechnology

#### Environmental Biotechnology

**Areas of study:** Environmental chemistry, environmental engineering, environmental remediation, medical biotechnology, recombinant biology, wastewater engineering.

**Assumed knowledge:** Mathematics Advanced, any 2 units of English, any 2 units of science.

**Recommended studies:** Chemistry, Mathematics Extension 1.

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### Medical Biotechnology

**Areas of study:** Human anatomy and physiology, immunology, medical biotechnology, medical devices, microbiology, molecular biology, pharmacology, recombinant biology.

**Assumed knowledge:** Mathematics Advanced, any 2 units of English, any 2 units of science.

**Recommended studies:** Chemistry, Mathematics Extension 1.

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### Building

#### Construction Project Management

**Areas of study:** Building surveying, business management, contract management, construction site management, construction technology, cost planning and professional practice, design management, economics, estimating, law, project management, quantity surveying, risk and safety management, services, structures, sustainable development, time/cost/quality management.

**Assumed knowledge:** Mathematics Advanced, any 2 units of English.

**Recommended studies:** Design and Technology, Engineering Studies, Construction (Exam), Economics, Business Studies, English Standard, Mathematics Extension 1 or Mathematics Extension 2.

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### Property Economics

**Areas of study:** Economics, financial management, investment and valuation, property finance, land appraisal/land evaluation, land economics, urban economics, urban planning, legal studies, planning/land management/land science, property management, real estate management, policy, property technology.

**Assumed knowledge:** Mathematics Advanced, any 2 units of English.

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### Business

#### Accounting

**Areas of study:** Accounting, business.

**Assumed knowledge:** Mathematics Advanced, any 2 units of English.

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#### Business

**Areas of study:** Accounting, business, business law*, economics, finance, human resource management, information technology*, international business, management, marketing, advertising and marketing communication.

* Second major only

**Assumed knowledge:** Mathematics Advanced, any 2 units of English.

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#### Economics

**Areas of study:** Applied microeconometrics, behavioural economics, business law*, econometrics, economic policy, economics of money and finance, economics of the environment, experimental economics, finance*, game theory, international business*, information technology*, human resource management*, labour economics, macroeconomics, management*, market design, marketing*, microeconomics, public economics, time series econometrics.

* Second major

**Assumed knowledge:** Mathematics Advanced, any 2 units of English.

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### Management (Digital Creative Enterprise, Events, Sport Business, Tourism)

**Areas of study:** Business strategy, creative industries in the collaborative economy, current challenges in tourism, current issues in sport, digital strategy and governance, entrepreneurship studio, event and entertainment, event management, event sponsorship, events, innovation and entrepreneurship, international sport marketplace, management, management research skills, managing professional sport, managing risk and opportunity, promoting events, scenario planning, sport business, sport marketing, sustainable tourism, tourism, tourism promotion, tourist experience.

**Assumed knowledge:** Any 2 units of English.

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### Communication

#### Animation

**Areas of study:** 2D animation, 3D computer animation, animation history and aesthetics, animation studies, character design, editing, hybrid and experimental practices, narrative and non-narrative animation development, screenwriting, storyboarding, VFX and sound design, world building.

**Assumed knowledge:** Any 2 units of English.

**Recommended studies:** Any 2 units of English.

**Recommended studies:** Design and Technology, Visual Arts.

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#### Communication – Creative Writing

**Areas of study:** Creative non-fiction writing, critical analysis, fiction writing, genre writing, narrative, poetry, screenwriting, textual theory.

**Assumed knowledge:** Any 2 units of English.

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#### Communication – Digital and Social Media

**Areas of study:** Digital communities, digital marketing, digital technologies, programming, social media platforms, user experience design, user interface design.

**Assumed knowledge:** Any 2 units of English.

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#### Communication – Journalism

**Areas of study:** Data journalism, digital publishing, ethical practice, investigative journalism, long-form storytelling, radio and TV journalism, reflective practice, reporting online, social media.

**Assumed knowledge:** Any 2 units of English.

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#### Communication – Media Arts and Production

**Areas of study:** Cinematography, documentary, drama, film studies, media arts, multi-platform storytelling, multimedia, post production, producing, sound.

**Assumed knowledge:** Any 2 units of English.

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#### Communication – Public Communication

**Areas of study:** Advertising, integrated communication, public communication, public relations.

**Assumed knowledge:** Any 2 units of English.

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#### Communication – Social and Political Sciences

**Areas of study:** Analysing social and political change; communicating policy and producing online publications; developing policy analysis and advocacy; project research with an outside organisation; using real-world social research and research methods; using theory from politics, sociology and political economy.

**Assumed knowledge:** Any 2 units of English.

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#### Music and Sound Design

**Areas of study:** Audio production, music business, music technology, popular music studies, screen sound, song composition, sound design.

**Assumed knowledge:** Any 2 units of English.
Design

Fashion and Textiles
Areas of study: 2D and 3D pattern-making approaches, conceptual thinking, experimental design, fashion design practice, fashion history, fashion research, global fashion studios, menswear, sustainable fashion, textile design practice, womenswear.
Assumed knowledge: Any 2 units of English.
Recommended studies: Design and Technology, Textiles and Design, Visual Arts.

Product Design
Areas of study: Accessory design, advanced manufacturing technologies, contemporary and advanced concept design, contemporary and future design practice, design for 3D printing, design for advanced materials, design history, design led research, design management, design thinking, designing and making, furniture design, generative design, inclusive design, Indigenous design practice and knowledge, industrial design, innovation and commercialisation, interaction design, next generation product design, object design, product design, product engineering, professional design practice, project management, service design, social design, speculative design, sustainable design, systems design, user experience (UX) design, user-centred design.
Assumed knowledge: Any 2 units of English.
Recommended studies: Design and Technology, Textiles and Design, Visual Arts.

Visual Communication
Areas of study: Augmented reality, branding, creative code, critical practice, critical thinking, data visualisation, design fiction, design for animation, design history, design thinking, exhibition design, experiential design, illustration, inclusive design, information design, interactive design, motion graphics, participatory design, service design, speculative design, strategic design, transition design, typography, virtual reality, web design.
Assumed knowledge: Any 2 units of English.
Recommended studies: Design and Technology, Visual Arts.

Education
Secondary
Areas of study: Contextual studies of education, curriculum studies in chosen teaching areas taught in secondary schools (i.e. inclusive education, Indigenous Australian education, digital technologies, professional learning, educational psychology, literacy and numeracy, sociology of education and professional experience), teaching method subjects for discipline areas taught in secondary schools and discipline subjects delivered in associated undergraduate course.
Assumed knowledge: Any 2 units of English (excluding EAL/D).
Additional selection criteria: Personal statement as per the NESA requirements.

Biology, Chemistry and Environmental Science
Recommended studies: Mathematics Advanced, any 2 units of science, any 2 units of English.

Chemistry and Physics
Recommended studies: Mathematics Advanced, Physics or Chemistry, any 2 units of English.

Mathematics and Mathematics/Physics
Recommended studies: Mathematics Extension 1, any 2 units of science, and any 2 units of English.

TAS/Mathematics
Recommended studies: Mathematics Extension 1, Physics, and English Standard.

Engineering
Areas of study: Biomedical, civil, civil and environmental, data, electrical, electrical and electronic, electronic, mechanical, mechanical and mechatronic, mechatronic, software.
Assumed knowledge: Mathematics Extension 1, Physics, English Standard.
Recommended studies: English Advanced. For the biomedical, civil, and civil and environmental engineering majors, Chemistry is recommended. For the software engineering major, a sound knowledge of the fundamentals of programming is recommended.
Additional selection criteria: Questionnaire.

Environmental Biology
Areas of study: Biodiversity; cell biology and genetics; ecology of freshwater, estuarine and marine systems; environmental chemistry; experimental design and data analysis; GIS and remote sensing; marine geoscience; plant and wildlife ecology and management; structure, behaviour and physiology of plants and animals (additional subjects are available after first year for in-depth specialisation in selected areas).
Assumed knowledge: Mathematics Advanced, any 2 units of English, any 2 units of science.

Forensic Science
Assumed knowledge: Mathematics Advanced, any 2 units of English, any 2 units of science.
Recommended studies: Chemistry and Biology.

Forensic Science – Biology
Areas of study: Advanced genomics, bioinformatics, biological criminalistics, bionanotechnology, DNA profiling, investigation of human remains, metabolic biochemistry, microbiology, molecular biology.

Forensic Science – Chemistry
Areas of study: Analytical chemistry, chemical criminalistics, document and counterfeiting, drug analysis, fire and explosion, forensic intelligence, organic chemistry, toxicology.

Forensic Science – Crime Scene Investigation
Areas of study: Advanced forensic imaging and recovery, criminalistics, forensic intelligence, homicide investigation, investigation of human remains, major scene investigation, organic chemistry.

Forensic Science – Digital Forensics
Areas of study: Digital crime and cybercrime, digital trace and identity, forensic intelligence, forensic statistics, mobile networking, network security, web and monitoring investigation.

Health Science
Areas of study: Analytics, contemporary health issues, data analytics, digital health, epidemiology, global health, human structure and function, pharmacology, sport and exercise.
Assumed knowledge: Any 2 units of English.

Information Technology
Areas of study: Business information systems management, data analytics, enterprise systems development, interaction design, networking and cybersecurity, industry-based learning.
Assumed knowledge: Mathematics Advanced, any 2 units of English.
Recommended studies: English Advanced, Mathematics Extension 1.
Additional selection criteria: Questionnaire.
Computing Science
- **Areas of study:** Artificial intelligence and data analytics, business information systems management, cybersecurity and privacy, enterprise systems development, interaction design, mathematical analysis, networking and cybersecurity, operations research, quantum information science, statistics.
- **Assumed knowledge:** Mathematics Extension 1, any 2 units of English.
- **Recommended studies:** English Advanced.

Games Development
- **Areas of study:** Animation, computing and IT fundamentals, game design, graphics, software engineering, systems development.
- **Assumed knowledge:** Mathematics Advanced, any 2 units of English.
- **Recommended studies:** English Advanced, Mathematics Extension 1.

Information Systems
- **Areas of study:** Information system management, processes and models, data analytics, planning and decision-making, knowledge management, innovation, sustainability.
- **Assumed knowledge:** Mathematics Advanced, any 2 units of English.
- **Recommended studies:** English Advanced, Mathematics Extension 1.

Law
- **Law (LLB)**
- **Law (Combined)**
  - Business/Law
  - Communication (Creative Writing)/Law
  - Communication (Digital and Social Media)/Law
  - Communication (Journalism)/Law
  - Communication (Media Arts and Production)/Law
  - Communication (Public Communication)/Law
  - Communication (Social and Political Sciences)/Law
  - Creative Intelligence and Innovation/Law
  - Economics/Law
  - Engineering Science/Law
  - Forensic Science/Law
  - International Studies/Law
  - Medical Science/Law
  - Science/Law
  - Science in Information Technology/Law

**Areas of study:** For Law: Commercial law, contracts, corporate law, criminal law, dispute resolution, employment law, environmental law, family law, finance and banking law, health and medical law, human rights, Indigenous knowledge, industrial law, intellectual property, international law, justice studies, law and technology, legal theory, media and privacy law, public international law, regulation and compliance, remedies, torts.

**For the other area of study:** Refer to the relevant entry.

**Assumed knowledge:** For Law: Any 2 units of English.

Marine Biology
- **Areas of study:** Animal behaviour and physiology, biological diversity, climate change, coral reef ecosystems, ecology, environmental protection and management, fish biology, fisheries, GIS and remote sensing, marine plant and algae.
- **Assumed knowledge:** Mathematics Advanced, any 2 units of English, any 2 units of science.

Medicinal Chemistry
- **Areas of study:** Analytical chemistry, cell biology and genetics, human anatomy and physiology, inorganic chemistry, mathematical modelling for science, medicinal chemistry, metabolic biochemistry, organic chemistry, pharmacology, physical chemistry, physiological systems, principles of scientific practice, spectroscopy and structure, strategies in drug synthesis.
- **Assumed knowledge:** Mathematics Advanced, any 2 units of science, any 2 units of English.
- **Recommended studies:** Chemistry, Mathematics Extension 1.

Medical Science
- **Areas of study:** Anatomy, cell biology, diagnostics, drugs, genetics, haematology, human diseases, immunology, medical devices, medicine, metabolic biochemistry, microbiology, molecular biology, neuroscience, pharmacology, physiology.
- **Assumed knowledge:** Mathematics Advanced, any 2 units of English, any 2 units of science.

Midwifery
- **Areas of study:** Midwifery.
- **Assumed knowledge:** Any 2 units of English.
- **Recommended studies:** Any 2 units of science, any 2 units of mathematics.

Nursing
- **Areas of study:** Nursing.
- **Assumed knowledge:** English Standard.
- **Recommended studies:** Any 2 units of science, any 2 units of mathematics.

Science
- **Assumed knowledge:** For all Science courses: Mathematics Advanced, any 2 units of English, any 2 units of science unless otherwise specified. Mathematics Extension 1 is recommended for those majoring in mathematics/statistics. Refer to ‘Read this first’ at the beginning of the UTS entry.

Applied Physics
- **Areas of study:** Advanced mechanics, computer modelling, electronics and computer interfacing, measurement analysis, nanophotonics, optics, quantum physics, scanning probe and electron microscopy, solid-state science, thermodynamics.
- **Recommended studies:** Chemistry, Mathematics Extension 1, Physics.

Biomedical Science
- **Areas of study:** Anatomy, animal and plant biotechnology, biobusiness, biochemistry, bioreactors and bioprocessing, cell biology and genetics, environmental biotechnology, haematology, immunology, medical devices, microbiology, molecular biology, neuroscience, parasitology, pathology, pathophysiology, pharmacology, physiology.
- **Recommended studies:** Chemistry, Mathematics Extension 1.

Biotechnology
- **Areas of study:** Anatomy, animal and plant biotechnology, biobusiness, biochemistry, bioreactors and bioprocessing, cell biology and genetics, environmental biotechnology, haematology, immunology, medical devices, microbiology, molecular biology, neuroscience, parasitology, pathology, pathophysiology, pharmacology, physiology.
- **Recommended studies:** Chemistry, Mathematics Extension 1.

Chemistry
- **Areas of study:** Analytical, inorganic, organic and physical chemistry; materials science; polymer science and surface chemistry. Students also have the opportunity to take subjects in forensic chemistry, medicinal, pharmaceutical and toxicological chemistry, nanotechnology.
- **Recommended studies:** Chemistry, Mathematics Extension 1, Physics.
Environmental Sciences

**Areas of study:** Biodiversity, ecosystem protection and management; cell biology and genetics; environmental chemistry; environmental management; experimental design and analysis of ecological data; fisheries resources; freshwater ecology, estuarine and marine systems; GIS and remote sensing; marine geoscience; plant and wildlife ecology and management; pollution impacts on ecosystems; structure, behaviour and physiology of plants and animals.

**Assumed knowledge:** Mathematics Advanced, any 2 units of English, any 2 units of science.

Flexible

**Areas of study:** Analytical chemistry, organic and inorganic chemistry; applied physics; biotechnology; environmental sciences; marine biology; mathematics and statistics; medical science and biomedical science; nanomaterials and nanotechnology.

**Assumed knowledge:** Chemistry, Mathematics Extension 1.

Mathematics

**Areas of study:** Analysis of commercial and scientific data; applied statistics; design of statistical studies in commerce, industry and society; quantitative methods in management and logistics; theoretical foundations of applied mathematics and statistics. Students can choose additional studies in business, finance, law or information technology.

**Assumed knowledge:** Mathematics Advanced, any 2 units of English.

**Recommended studies:** Mathematics Extension 1.

Medical Science

**Areas of study:** Anatomy, animal and plant biotechnology, biobusiness, biochemistry, bioreactors and bioprocessing, cell biology and genetics, environmental biotechnology, haematology, immunology, medical devices, microbiology, molecular biology, neuroscience, parasitology, pathology, pathophysiology, pharmacology, physiology.

**Assumed knowledge:** Mathematics Extension 1.

**Recommended studies:** Mathematics Extension 1.

Nanotechnology

**Areas of study:** Bionanotechnology, materials science, nanofabrication, nanomaterials, nanoscale sensors, nanotubes.

**Recommended studies:** Chemistry, Mathematics Extension 1, Physics.

Statistics

**Areas of study:** Analysis of commercial and scientific data; applied statistics; design of statistical studies in commerce, industry and society; quantitative methods in management and logistics; theoretical foundations of applied mathematics and statistics. Students can choose additional studies in business, finance, law or information technology.

**Assumed knowledge:** Mathematics Advanced, any 2 units of English.

**Recommended studies:** Mathematics Extension 1.

Sport and Exercise Management

**Areas of study:** Financial management, anatomy, biomechanics, event management, exercise management, exercise physiology, law, managing professional sport, nutrition, strength and conditioning, sport management, sports marketing, sports psychology, sports science, strategic management, management, sport and exercise.

**Assumed knowledge:** Mathematics Advanced, any 2 units of English.

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Sport and Exercise Science

**Areas of study:** Anatomy, biomechanics, exercise assessment, exercise delivery, exercise physiology, exercise prescription, exercise rehabilitation, health, human movement, motor learning, nutrition, sports psychology, sports science, sport and exercise, strength and conditioning.

**Assumed knowledge:** Mathematics Advanced, any 2 units of English.

Exercise Therapy

**Areas of study:** Anatomy, biomechanics, exercise assessment, exercise delivery, exercise physiology, exercise prescription, exercise rehabilitation, health, human movement, motor learning, nutrition, physiotherapy, sports psychology, sports science, sport and exercise, strength and conditioning.

**Assumed knowledge:** Mathematics Advanced, any 2 units of English.

**Combined Degrees**

If you intend to undertake combined degrees check the prerequisites, assumed knowledge and recommended studies for both degrees. Contact the University for further details.

- **Biotechnology/Business** – Medical Science/Business
- **Engineering/Business** – Medical Science/Engineering
- **Information Systems/Business** – Science/Business
- **Informatics/Business** – Science/Engineering

Combined degrees in Law are also offered – refer to main subject entry for details.

Creative Intelligence and Innovation (Combined)

- **Advanced Science** – Engineering
- **Animation** – Fashion and Textiles
- **Architecture** – Forensic Science
- **Biomedical Physics** – Information Technology
- **Business** – Interior Architecture
- **Communication (Creative Writing)** – Law
- **Communication (Digital and Social Media)** – Management
- **Communication (Journalism)** – Medicinal Chemistry
- **Communication (Media Arts and Production)** – Midwifery
- **Communication (Public Communication)** – Nursing
- **Communication (Social and Political Sciences)** – Product Design
- **Science** – Science
- **Sport and Exercise Science** – Visual Communication

**Areas of study:** For creative intelligence and innovation: Collaboration and co-creation, complexity, critical and creative thinking, entrepreneurship, future scenario building, innovation, invention.

**Assumed knowledge/Recommended studies:** Refer to the core degree to be combined with Creative Intelligence and Innovation.

Innovation (Dip)

The Diploma in Innovation is an additional qualification designed to add value to any undergraduate degree (including double degrees, except BCI). Students develop highly-in-demand capabilities to collaborate across disciplines and innovate. This course is its own complete degree and only 48 credit points. All subjects are offered part-time in 3-week periods between the main sessions and can be completed in parallel with the core degree(s).

Drawing on industry partners, the Diploma in Innovation immerses students in real challenges with no exams. For further information including FAQs, visit dipinn.uts.edu.au.
International Studies (Combined)
- Analytics
- Animation
- Business
- Communication (Creative Writing)
- Communication (Digital and Social Media)
- Communication (Journalism)
- Communication (Media Arts and Production)
- Communication (Public Communication)
- Communication (Social and Political Sciences)
- Construction Project Management
- Engineering
- Fashion and Textiles
- Forensic Science
- Health Science
- Information Technology
- Interior Architecture
- Law
- Management
- Medical Science
- Music and Sound Design
- Nursing
- Product Design
- Property Economics
- Science
- Sport and Exercise Management
- Sport and Exercise Science
- Visual Communication

Sustainability and Environment (Combined)
- Business
- Management
- Health Science
- Science

**Assumed knowledge/Recommended studies:** Refer to the core degree to be combined with Sustainability and Environment.
Arts (Dip)
Areas of study: Academic study, communication, computing studies, government and political systems, history and sociology.
Assumed knowledge: Any 2 units of English.

Bionanotechnology
Areas of study: Molecular biology and biophysics, nanotechnology, physical and biological chemistry.
Assumed knowledge: Biology, Chemistry, Mathematics Advanced, Physics.
Recommended studies: Mathematics Extension 1.

Business
Areas of study: Accounting, business analytics, business law, economics, finance, financial planning, human resources, international business, management, marketing, public relations, sport marketing and management, supply chain management.
Assumed knowledge: Any 2 units of English.

Business (Dip)
Assumed knowledge: Any 2 units of English.

Business Information Systems
Assumed knowledge: Any 2 units of English.
Recommended studies: Mathematics Advanced or Mathematics Standard 2.

Commerce
Areas of study: Accountancy, business law, economics, finance, financial planning, human resource management, international business, management, marketing, public relations, supply chain management.
Assumed knowledge: Any 2 units of English.

Communication and Media
Areas of study: Digital and social media, global screen media, journalism, marketing communication and advertising, visual communication design.
Assumed knowledge: Any 2 units of English.
Recommended studies: English Advanced.

Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

Applied Analytics
Areas of study: Computer science, data analytics and visualisation, database performance, financial modelling, mathematics, statistics.
Assumed knowledge: Any 2 units of mathematics, any 2 units of English.
Recommended studies: Mathematics Advanced.

Arts (Humanities)
Areas of study: Archaeology and ancient history; Chinese (Mandarin); community, culture and environment (Shoalhaven, Batemans Bay, Bega and Southern Highlands campuses only); completion of full major subject to availability at time of enrolment; creative writing; English literatures; environmental humanities; French; history; Indigenous studies; international relations; Japanese; legal studies; philosophy; photography; politics; sociology; Spanish; western civilisation (liberal arts); writing and English literature.
Assumed knowledge: Any 2 units of English.
Recommended studies: English Advanced. For language majors: 2 units of language studies. For western civilisation: English Advanced and History Extension.
Additional selection criteria: For western civilisation: Written application and interview.
Computer Science
Areas of study: Artificial intelligence*, big data, computer science, cyber security, digital systems security, game and mobile development, software engineering.
* Subject to approval.
Assumed knowledge: Mathematics Advanced, any 2 units of English.
Recommended studies: Mathematics Extension 1.

Conservation Biology
Areas of study: Conservation biology, landscape science, plant and animal ecology.
Assumed knowledge: Mathematics Advanced, any 2 units of science.
Recommended studies: Biology, Chemistry.

Creative Arts
Areas of study: Creative writing, music, visual arts, visual arts and design.
Assumed knowledge: Any 2 units of English.
Recommended studies: English Advanced. For visual arts: Visual Arts and/or Design and Technology and/or Textiles and Design. For music: Music 2 or Music Extension.

Data Science and Analytics
Areas of study: Analytics, computer science and information technology, data modelling, data science, mathematics, statistics.
Course prerequisite: Mathematics Advanced.
Assumed knowledge: Any 2 units of English.
Recommended studies: Mathematics Extension 1.

Economics and Finance
Areas of study: Economics, finance.
Assumed knowledge: Mathematics Advanced, any 2 units of English.

Engineering
Areas of study: Architectural, biomedical, civil, computer and autonomous systems, electrical and electronics, environmental, materials, mechanical, mechatronics, mining and telecommunications and the internet of things.
Assumed knowledge: Mathematics Advanced, any 2 units of English.
Recommended studies: Mathematics Extension 1, Engineering Studies, Physics, Chemistry. (Chemistry not required for computer and autonomous systems, electrical and electronics, mechatronics or telecommunications and the internet of things).

Engineering – Scholar
Areas of study: Architectural, biomedical, civil, computer and autonomous systems, electrical and electronics, environmental, materials, mechanical, mechatronics, mining and telecommunications and the internet of things.
Assumed knowledge: Mathematics Advanced, any 2 units of English.
Recommended studies: Mathematics Extension 1, Engineering Studies, Physics, Chemistry. (Chemistry not required for computer and autonomous systems, electrical and electronics, mechatronics or telecommunications and the internet of things).

Engineering (Dip)
Areas of study: Design, mathematics, mechanics, physics.
Assumed knowledge: Mathematics Advanced, any 2 units of English.
Recommended studies: Chemistry, Engineering Studies, Physics.

Environmental Science
Areas of study: Earth sciences, environmental chemistry, land resources, life sciences.
Assumed knowledge: Mathematics Advanced plus one of Biology, Chemistry, Earth and Environmental Science or Geography.
Recommended studies: Any 4 units of science.

Exercise Science and Rehabilitation
Areas of study: Anatomy, biomechanics, exercise physiology, exercise prescription, exercise rehabilitation, physiology.
Assumed knowledge: Mathematics Advanced, any 2 units of science.
Recommended studies: Biology, Chemistry.

Geography
Areas of study: Human and physical geography.
Assumed knowledge: Mathematics Advanced, any 2 units of science.
Recommended studies: Earth and Environmental Science, Geography.

Information Technology
Areas of study: eBusiness, network design and management, web design and development.
Assumed knowledge: Any 2 units of English.
Recommended studies: Mathematics Advanced or Mathematics Standard 2.

Information Technology (Dip)
Areas of study: Data management, networks and communications, programming, system analysis, web technology.
Assumed knowledge: Any 2 units of mathematics.
Recommended studies: Any 2 units of mathematics.

International Studies
Areas of study: Global sustainable development, international relations, languages.
Assumed knowledge: Any 2 units of English.
Recommended studies: English Advanced.

Journalism
Assumed knowledge: Any 2 units of English.
Recommended studies: English Advanced.

Law
Areas of study: Business and financial law, commercial law, constitutional law, contracts, criminal law, environmental law, family law, human rights, intellectual property, international law, jurisprudence, legal ethics, legal skills, litigation and practice skills/internships, property law, taxation, torts.
Assumed knowledge: Any 2 units of English.
Recommended studies: English Advanced.
A range of double degrees are available to be taken with the Law degree. See uow.edu.au for more information.

Mathematical Sciences
Areas of study: Applied statistics, mathematical analysis, pure and applied mathematics.
Assumed knowledge: Mathematics Extension 2.
Mathematics

Mathematical Sciences (Honours)

Areas of study: Applied statistics, mathematical analysis, pure and applied mathematics.

Course prerequisite: Mathematics Extension 2.

Assumed knowledge: Mathematics Advanced, any 2 units of English.

Recommended studies: Mathematics Extension 1.

Mathematics

Areas of study: Applied statistics, mathematical analysis, pure and applied mathematics.

Course prerequisite: Mathematics Advanced.

Assumed knowledge: Any 2 units of English.

Recommended studies: Mathematics Extension 1.

Mathematics and Finance

Areas of study: Financial planning, mathematical economics, quantitative and computational trading, quantitative corporate finance and investment, risk management and insurance.

Assumed knowledge: Mathematics Advanced, any 2 units of English.

Recommended studies: Mathematics Extension 1.

Mathematics Education – see Teaching

Medical and Health Science

Areas of study: Anatomy, chemistry, neuroscience, physiology.

Assumed knowledge: Mathematics Advanced, any 2 units of science.

Recommended studies: Biology, Chemistry.

Medical and Radiation Physics

Areas of study: Medical imaging, nuclear medicine, radiation protection, radiation therapy, radiobiology.

Assumed knowledge: Mathematics Advanced, Physics, any 2 units of English.

Recommended studies: English Advanced, Mathematics Extension 1.

Medical Biotechnology

Areas of study: Biochemistry, biotechnology, cellular and molecular biology, genetics, immunology.

Assumed knowledge: Mathematics Advanced, any 2 units of science.

Recommended studies: Biology, Chemistry.

Medicinal Chemistry

Areas of study: Biochemistry, pharmacology, physiology.

Assumed knowledge: Chemistry, Mathematics Advanced.

Recommended studies: Any 4 units of science.

Neuroscience

Areas of study: Anatomy, biochemistry, chemistry, neuroscience, psychology.

Assumed knowledge: Biology, Chemistry, Mathematics Advanced.

Recommended studies: Any 4 units of science.

Nursing

Assumed knowledge: Any 2 units of English.

Nutrition and Dietetics/Nutrition Science

Areas of study: Biochemistry, clinical dietetics, community and public health nutrition, food composition, food service management, nutrition research, physiology.

Assumed knowledge: Mathematics Advanced, any 2 units of science.

Recommended studies: Biology, Chemistry.

Performance and Theatre

Areas of study: Acting, producing and directing, singing, sound design and lighting, stage management, theatre-making, technical theatre, writing.

Assumed knowledge: Any 2 units of English.

Recommended studies: English Advanced, Drama.

Additional selection criteria for Acting major: Audition and/or interview.

Politics, Philosophy, Economics

Assumed knowledge: Any 2 units of English.

Recommended studies: English Advanced.

Pre-Medicine, Science and Health

Areas of study: Anatomy, chemistry, human anatomy, human physiology.

Assumed knowledge: Mathematics Advanced, any 2 units of science.

Recommended studies: Biology, Chemistry.

Psychology

Assumed knowledge: Any 2 units of English.

Recommended studies: Mathematics Advanced.

Public Health

Areas of study: Public health.

Assumed knowledge: Any 2 units of English.

Science

Areas of study: Atmospheric science, biomolecular physics, cell and molecular biology, chemistry, ecology and conservation biology, environment, geology, human geography, land and heritage management, marine science, mathematics and physics, nuclear science and technology, physical geography, physics.

Assumed knowledge: Mathematics Advanced, any 2 units of science. For mathematics and physics, nuclear science and technology: Mathematics Advanced, any 2 units of English.

Recommended studies: Any 4 units of science. For materials, mathematics and physics, nuclear science and technology: Chemistry, Mathematics Extension 1, Physics.

Advanced

Areas of study: Atmospheric science, biomolecular physics, physics.

Assumed knowledge: Mathematics Advanced, any 2 units of science. Recommended studies: Chemistry, Mathematics Extension 1, Physics.

Science Education – see Teaching

Science (Dip)

Areas of study: Biodiversity and environment, biological sciences and climate change, chemistry, earth sciences, mathematics.

Assumed knowledge: Any 2 units of mathematics.
Social Change and Advocacy

Areas of study: Crime, food production and distribution, politics, population geography, social advocacy, social justice and equity, social policy, social research skills, sustainability, urban studies.

Assumed knowledge: Any 2 units of English.

Social Science

Areas of study: Community culture and environment (Shoalhaven campus only), criminology, health promotion, human geography, Indigenous studies, public health, social marketing, social policy, sociology.

Assumed knowledge: Any 2 units of English.

Social Science (Dip)

Areas of study: Academic skills for social science, economics and society, human geography.

Assumed knowledge: Any 2 units of English.

Social Work

Areas of study: Social work.

Assumed knowledge: Any 2 units of English.

Sport

Areas of study: Coaching, game observation and analysis, sports education and physical movement.

Assumed knowledge: Any 2 units of English.

Recommended studies: Personal Development, Health and Physical Education (PDHPE).

Sustainable Communities

Areas of study: Human geography, social and environmental sustainability, social policy.

Assumed knowledge: Any 2 units of English.

Recommended studies: Geography.

Teaching

Early Years (including Dean’s Scholar)

Assumed knowledge: Any 2 units of English.

Recommended studies: Any 2 units of mathematics.

Health and Physical Education (including Dean’s Scholar)

Assumed knowledge: Any 2 units of English*.

Recommended studies: Any 2 units of science or Personal Development, Health and Physical Education (PDHPE).

Mathematics Education (including Dean’s Scholar)

Course prerequisite: Mathematics Advanced.

Assumed knowledge: Mathematics Advanced (Band 4), any 2 units of English*.

Recommended studies: Mathematics Extension 1.

Primary Education (including Dean’s Scholar)

Assumed knowledge: Any 2 units of English.

Recommended studies: Any 2 units of mathematics.

Science Education (including Dean’s Scholar)

Assumed knowledge: Mathematics Advanced, any 2 units of English*.

Recommended studies: Any 4 units of science, selected from Biology, Chemistry, Earth and Environmental Science, Physics.

* Graduates must have achieved specific levels of study in English at NSW HSC level (or equivalent). See uow.edu.au for more information.

Technology

Assumed knowledge: Any 2 units of English.

Recommended studies: Mathematics Standard 2.

Double Degrees

See uow.edu.au for details of double degree combinations available.

If you intend to undertake double degrees check the prerequisites, assumed knowledge and recommended studies for both degrees.

**Arts**

**Areas of study:** Art history and theory, Asian studies, Australian studies, Chinese studies, creative writing, criminology, economics, English, environmental humanities, European studies, film studies, French studies, gender studies, geographical studies, German studies, global development, history, human resources management, Indigenous studies, Indonesian studies, Italian studies, international business, Japanese studies, Korean studies, linguistics, media, culture and technology, modern Greek studies, music studies, philosophy, politics and international relations, psychology, sociology and anthropology, Spanish and Latin American studies, studies in psychology, theatre and performance studies.

**Recommended studies:** English Advanced.

**Arts and Business**

**Areas of study:** Accounting, art history and theory, Asian studies, Australian studies, business, Chinese studies, creative writing, criminology, culture and technology, English, environmental humanities, European studies, film studies, finance, French studies, gender studies, geographical studies, German studies, global development, history, human resource management, Indigenous studies, Indonesian studies, international business, Italian studies, Japanese studies, Korean studies, law, linguistics, management, marketing, media, modern Greek studies, music studies, philosophy, politics and international relations, psychology, sociology and anthropology, Spanish and Latin American studies, theatre and performance studies.

**Assumed knowledge:** Mathematics Advanced.

**Recommended studies:** English Advanced.

**Aviation**

**Flying**

**Assumed knowledge:** Mathematics Advanced.

**Recommended studies:** Physics.

**Additional selection criteria:** Medical examination, internal application, interview.

**Management**

**Assumed knowledge:** Mathematics Standard 2.

**Recommended studies:** Physics.

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Read this first

- UNSW’s HSC Plus recognises performance in relevant HSC subjects. For further information, visit unsw.edu.au/hscplus.
- For HSC courses listed as assumed knowledge, students are expected to have a level of performance at Band 4 or higher.
- Students who do not have the level of assumed knowledge specified may find themselves ill-prepared for first-year subjects and therefore be placed at a considerable disadvantage. Chemistry and Physics bridging courses are offered at the Kensington campus before the start of Term 1/ Semester 1 each year for students who have not included one or both in their HSC program. A mathematics bridging course is also offered for those students wishing to upgrade their HSC mathematics knowledge to the level of Mathematics Extension 1.

Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

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**Actuarial Studies**

**Areas of study:** Accounting, actuarial risk management and analytics, actuarial studies, business economics, business law, business strategy and economic management, finance, financial economics, financial technology, human resource management, information systems, international business, management, marketing, mathematics, quantitative data science, real estate studies, statistics, taxation.

**Assumed knowledge:** Mathematics Extension 1.

**Recommended studies:** English Advanced, Mathematics Extension 2.

**Advanced Mathematics (Hons)**

**Areas of study:** Advanced statistics, applied mathematics, pure mathematics.

**Assumed knowledge:** Mathematics Extension 1.

**Recommended studies:** Mathematics Extension 2.

**Architectural Studies**

**Areas of study:** Architectural design, communications, computer modelling, design studio, history and theory, materials, professional practice, structure and construction, technical drawing and model making, technology and environment.
<table>
<thead>
<tr>
<th>Program</th>
<th>Areas of study/Recommended studies</th>
<th>Assumed knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biotechnology (Hons)</td>
<td>Areas of study: Criminology, social research and policy. Recommended studies: English Advanced.</td>
<td>Mathematics Advanced.</td>
</tr>
<tr>
<td>City Planning</td>
<td>Areas of study: City economics, environmental science, heritage studies, planning history, planning law, planning theory and methodology, sociology, transport planning, urban design. Recommended studies: Design and Technology, Economics, English Advanced, Geography, Legal Studies, Society and Culture.</td>
<td>Mathematics Extension 1.</td>
</tr>
<tr>
<td>Criminology and Criminal Justice</td>
<td>Areas of study: Criminology, social research and policy. Recommended studies: English Advanced.</td>
<td>Mathematics Advanced.</td>
</tr>
<tr>
<td>Music/Education (Secondary)</td>
<td>Assumed knowledge: Any 2 units of English (Band 5) plus either Grade 7 AMEB Performance (or equivalent) and Music 2 or Grade 6 AMEB Musicianship (or equivalent) or Music Extension. Recommended studies: English Advanced.</td>
<td>Mathematics Extension 1.</td>
</tr>
<tr>
<td>Science/Education (Secondary)</td>
<td>Assumed knowledge: Any 2 units of English (Band 5), Mathematics Advanced and Chemistry plus one of Biology or Earth and Environmental Science, Physics or Mathematics Extension 1 (depending on chosen area of study). Recommended studies: English Advanced.</td>
<td>Mathematics Extension 1.</td>
</tr>
</tbody>
</table>
Engineering
Aerospace Engineering
Biomedical Engineering
Civil Engineering
Civil Engineering with Architecture
Computer Engineering
Electrical Engineering
Environmental Engineering
Mechanical and Manufacturing Engineering
Mechanical Engineering
Mechatronic Engineering
Mining Engineering
Petroleum Engineering
Photovoltaics and Solar Energy Engineering
Quantum Engineering
Renewable Energy Engineering
Surveying

Telecommunications
Assumed knowledge: Mathematics Extension 1, Physics.

Bioinformatics Engineering
Assumed knowledge: Chemistry, Mathematics Extension 1.
Recommended studies: Biology, Engineering Studies, Mathematics Extension 2, Information Processes and Technology, Software Design and Development.

Chemical Engineering
Assumed knowledge: Chemistry, Mathematics Extension 1, Physics.
Recommended studies: Biology, Engineering Studies, Mathematics Extension 2, Information Processes and Technology, Software Design and Development.

Chemical Product Engineering
Assumed knowledge: Chemistry, Mathematics Extension 1, Physics.
Recommended studies: Biology, Engineering Studies, Mathematics Extension 2, Information Processes and Technology, Software Design and Development.

Software Engineering
Assumed knowledge: Mathematics Extension 1.

Environmental Management
Areas of study: Biology, earth science, ecology, environmental chemistry, geography, marine and coastal science.
Assumed knowledge: Mathematics Advanced, Chemistry.
Recommended studies: Biology, Earth and Environmental Science, Physics.

Exercise Physiology
Assumed knowledge: Chemistry, Mathematics Advanced.
Recommended studies: Biology, Physics, Personal Development, Health and Physical Education (PDHPE).

Fine Arts
Areas of study: Art history, art theory, curating, drawing, moving image, painting, photography, printmaking, sculpture.
Recommended studies: Visual Arts.

Food Science
Assumed knowledge: Chemistry, Mathematics Extension 1, Physics.
Recommended studies: Biology.

Industrial Design
Areas of study: 3D digital modelling, commerce and marketing, computer aided design (CAD), design studio, materials and manufacturing, science and engineering.
Recommended studies: Design and Technology, Visual Arts.

Information Systems
Assumed knowledge: Mathematics Advanced.
Recommended studies: English Advanced, Mathematics Extension 1.

Interior Architecture
Areas of study: Communication, computer modelling, design studio, history and theory, materials, practice, technical drawing and model making, technology.

International Public Health
Areas of study: Disease transmission, epidemiology and biostatistics, health impacts of climate change, health leadership, Indigenous health, international development and policy, population and global health, prevention and control, women and children’s health.
Assumed knowledge: English Standard.
Recommended studies: Biology, Personal Development, Health and Physical Education (PDHPE).

International Studies
Areas of study: Asian studies, Chinese studies, environmental humanities, European studies, French studies, German studies, global development, international business, international studies, Japanese studies, Korean studies, politics and international relations, sociology and anthropology, Spanish and Latin American studies.
Language study: Chinese, French, German, Greek, Indonesian, Italian, Japanese, Korean and Spanish.
Recommended studies: English Advanced.

Landscape Architecture
Areas of study: Communication, design studio, ecological processes, environmental technology and practice, history and theory, landscape engineering principles, plants and design.
Recommended studies: Design and Technology, English Advanced, Geography, Visual Arts.
**Law (Double)**

- Actuarial Studies/Law
- Advanced Mathematics (Hons)/Law
- Advanced Science (Hons)/Law
- Arts/Law
- City Planning (Hons)/Law
- Commerce/Law
- Computer Science/Law
- Criminology and Criminal Justice/Law
- Data Science and Decisions/Law
- Economics/Law
- Engineering (Hons)/Law
- Fine Arts/Law
- International Studies/Law

Assumed knowledge: *For Law: None.*

For the other area of study: Refer to the relevant entry.

Recommended studies: *For Law: None.*

For the other area of study: Refer to the relevant entry.

Additional selection criteria: All students wishing to study undergraduate law at UNSW must sit the Law Admission Test (LAT).*

For more information visit [law.unsw.edu.au/lat](http://law.unsw.edu.au/lat).

* International students and Indigenous students applying through the Pre-Law Program do not need to sit the LAT.

**Materials Science and Engineering (Hons)**

Areas of study: Ceramic engineering, functional materials, materials engineering, physical metallurgy, process metallurgy.

Assumed knowledge: Mathematics Extension 1, Physics.

Recommended studies: Mathematics Extension 2, Chemistry and Engineering Studies.

**Media**

Communication and Journalism

Public Relations and Advertising

Screen and Sound Production

Areas of study: Advertising, communication, film studies, media, public relations, screen and sound production.

Recommended studies: English Advanced.

**Media Arts**

Areas of study: 3D visualisation, animation, moving image, sound, visual effects.

Recommended studies: Design and Technology, Industrial Technology (Multimedia Technologies), Information Processes and Technology, Visual Arts.

**Medical Science**

Areas of study: Human anatomy, human pathology, medical microbiology, medical pharmacology, medical physiology, molecular biology, molecular genetics, neurobiology.

Assumed knowledge: Mathematics Advanced, Chemistry.

**Medicinal Chemistry (Hons)**

Assumed knowledge: Mathematics Advanced, Chemistry.

Recommended studies: Biology, Physics.

**Music**

Areas of study: Music creative practice, musicology, music pedagogy, sonic arts.

Assumed knowledge: Either Grade 7 AMEB Performance (or equivalent) and Music 2 or Grade 6 AMEB Musicianship (or equivalent) or Music Extension.

Recommended studies: English Advanced.

Additional selection criteria: Audition.

**Politics, Philosophy and Economics**

Areas of study: Economics, philosophy, and politics and international relations.

Assumed knowledge: Mathematics Advanced.

**Psychological Science**

Areas of study: Criminology, human resource management, linguistics, marketing, neuroscience, philosophy, psychology, vision science.

Assumed knowledge: Mathematics Standard 2 or Mathematics Advanced (depending on major).

Recommended studies: Biology, Chemistry, English Advanced.

**Psychology (Hons)**

Assumed knowledge: Mathematics Standard 2.

Recommended studies: Biology, Chemistry, English Advanced.

**Science**

**Advanced Science (Hons)**

Areas of study: Advanced physical oceanography, advanced physics, anatomy, bioinformatics, biology, biotechnology, chemistry, climate dynamics, climate systems science, earth science, ecology, genetics, geography, immunology, marine and coastal science, materials science, mathematics, microbiology, molecular and cell biology, neuroscience, pathobiology, pharmacology, physiology, psychology, statistics, vision science.

Assumed knowledge: Chemistry, Mathematics Advanced or Mathematics Extension 1 (depending on chosen area of study) plus one or more of Biology, Earth and Environmental Science, Physics.

**Life Sciences**

Areas of study: Anatomy, biological chemistry, biology, biotechnology, ecology, genetics, immunology, marine and coastal science, microbiology, molecular and cell biology, pathology, pharmacology, physiology, psychology.

Assumed knowledge: Mathematics Advanced plus Biology or Chemistry.

**Science**

Areas of study: Anatomy, bioinformatics, biology, biotechnology, chemistry, earth science, ecology, food science, genetics, geography, immunology, marine and coastal science, materials science, mathematics, microbiology, molecular and cell biology, neuroscience, pathobiology, pharmacology, physical oceanography, physics, physiology, psychology, statistics, vision science.

Assumed knowledge: Chemistry, Mathematics Advanced or Mathematics Extension 1 (depending on chosen area of study) plus one or more of Biology, Earth and Environmental Science, Physics.
Science and Business

Areas of study: Anatomy, bioinformatics, biology, biotechnology, chemistry, earth science, ecology, food science, genetics, geography, marine and coastal science, materials science, mathematics, microbiology, molecular and cell biology, neuroscience, pathology, pharmacology, physical oceanography, physics, physiology, psychology, statistics, vision science.

Assumed knowledge: Chemistry, Mathematics Advanced or Mathematics Extension 1 (depending on chosen area of study) plus one or more of Biology, Earth and Environmental Science, Physics.

Science (International)

Areas of study: Advanced Chinese studies, advanced Japanese studies, advanced Korean studies, anatomy, bioinformatics, biology, biotechnology, chemistry, Chinese studies, earth science, ecology, food science, French studies, genetics, geography, German studies, Indonesian studies, Japanese studies, Korean studies, marine and coastal science, materials science, mathematics, microbiology, molecular and cell biology, neuroscience, pathology, pharmacology, physical oceanography, physics, physiology, psychology, Spanish and Latin American studies, statistics, vision science.

Assumed knowledge: Chemistry, Mathematics Advanced or Mathematics Extension 1 (depending on chosen area of study) plus one or more of Biology, Earth and Environmental Science, Physics.

Social Science

Areas of study: Economics, environmental humanities, global development, human resource management, Indigenous studies, international business, marketing, media, politics and international relations, sociology and anthropology.

Recommended studies: English Advanced.

Social Work

Recommended studies: English Advanced.

Vision Science

Assumed knowledge: Chemistry, English Advanced, Mathematics Advanced, Physics.

Double Degrees

If you intend to undertake double degrees check the prerequisites, assumed knowledge and recommended studies for both degrees. Contact the University for further details.

- Actuarial Studies/Advanced Mathematics (Hons)
- Actuarial Studies/Commerce
- Actuarial Studies/Computer Science
- Actuarial Studies/Economics
- Actuarial Studies/Information Systems
- Advanced Mathematics (Hons)/Arts
- Advanced Mathematics (Hons)/Computer Science
- Advanced Mathematics (Hons)/Engineering (Hons)
- Advanced Science (Hons)/Arts
- Advanced Science (Hons)/Computer Science
- Advanced Science (Hons)/Engineering (Hons)
- Advanced Science (Hons)/Fine Arts
- Advanced Science (Hons)/Social Science
- Commerce/Advanced Mathematics (Hons)
- Commerce/Advanced Science (Hons)
- Commerce/Arts
- Commerce/Aviation (Management)
- Commerce/Computer Science
- Commerce/Design
- Commerce/Economics
- Commerce/Fine Arts
- Commerce/Information Systems
- Commerce/Media (PR and Advertising)
- Commerce/Science
- Commerce/Science/Arts
- Commerce/Science/Media Arts
- Design/Media (PR and Advertising)
- Economics/Advanced Mathematics (Hons)
- Economics/Advanced Science (Hons)
- Economics/Arts
- Economics/Computer Science
- Economics/Science
- Engineering (Hons)/Arts
- Engineering (Hons)/Biomedical Engineering
- Engineering (Hons)/Computer Science
- Engineering (Hons)/Engineering Science
- Engineering (Hons)/Science
- Engineering (Hons)/Surveying
- Environmental Management/Arts
- Fine Arts/Arts
- International Studies/Media (Communications and Journalism)
- International Studies/Media (PR and Advertising)
- International Studies/Media (Screen and Sound)
- Materials Science and Engineering (Hons)/Biomedical Engineering
- Materials Science and Engineering (Hons)/Commerce
- Materials Science and Engineering (Hons)/Engineering Science (Chemical Engineering)
- Media/International Studies
- Medicine/Arts
- Music/Advanced Science (Hons)
- Music/Arts
- Music/Commerce
- Music/Engineering (Hons)
- Music/Media (Communications and Journalism)
- Music/Media (PR and Advertising)
- Music/Media (Screen and Sound)
- Music/Science
- Science/Arts
- Science/Computer Science
- Science/Fine Arts
- Social Work (Hons)/Arts
- Social Work (Hons)/Criminology and Criminal Justice
- Social Work (Hons)/Social Science
- Vision Science/Clinical Optometry

Double degrees in Law and Education are also offered. Refer to the main subject area for details.
Main headings indicate courses generally offered as bachelor degrees unless Dip, Adv Dip or Assoc Deg is shown in brackets. Subheadings are specialisations within the course.

**Arts**
- **Areas of study:** Majors: Business, English and media studies, geography, history, Indonesian Studies, international and political studies.
- **Assumed knowledge:** Any 2 units of English.
- **Offered to:** ADFA trainee officers.
- **Additional selection criteria:** ADFA trainee officers: Selection process with Defence Force Recruiting for entry to the Australian Defence Force.

**Business**
- **Assumed knowledge:** Any 2 units of English.
- **Offered to:** ADFA trainee officers.
- **Additional selection criteria:** ADFA trainee officers: Selection process with Defence Force Recruiting for entry to the Australian Defence Force.

**Computing and Cyber Security**
- **Assumed knowledge:** Mathematics Advanced.
- **Offered to:** ADFA trainee officers, DCUS students.
- **Additional selection criteria:** ADFA trainee officers: Selection process with Defence Force Recruiting for entry to the Australian Defence Force.

**Engineering**
- **Aeronautical Engineering**
- **Civil Engineering**
- **Electrical Engineering**
- **Mechanical Engineering**
- **Assumed knowledge:** Mathematics Advanced, Physics.
- **Offered to:** ADFA trainee officers, Non-Defence students, DCUS students.
- **Additional selection criteria:** ADFA trainee officers: Selection process with Defence Force Recruiting for entry to the Australian Defence Force.
- **Defence Civilian Undergraduate Sponsorship (DCUS) students:** Selection process with the Department of Defence.

**Science**
- **Areas of study:** Majors: Aviation, chemistry, computer science, geography, mathematics, oceanography, physics.
- **Assumed knowledge:** For Aviation, Chemistry, Oceanography and Physics majors: Mathematics Advanced.
- **For Aviation, Oceanography and Physics majors:** Physics.
- **Offered to:** ADFA trainee officers.
- **Additional selection criteria:** ADFA trainee officers: Selection process with Defence Force Recruiting for entry to the Australian Defence Force.

**Technology**
- **Aeronautical Engineering**
- **Assumed knowledge:** Mathematics Advanced, Physics.
- **Offered to:** ADFA trainee officers.
- **Additional selection criteria:** ADFA trainee officers: Selection process with Defence Force Recruiting for entry to the Australian Defence Force.
Arts

Areas of study: Anthropology, Arabic, Chinese, creative writing, criminology and criminal justice, culture and society, economy and markets, English, geography and urban studies, global business, heritage and tourism, history and political thought, Indigenous Australian studies, innovation and change, international English, international relations and Asian studies, interpreting and translation, Islamic studies, Japanese, linguistics, musicology, music performance, organisations and work, peace and development studies, philosophy, psychological studies, sociology.

Assumed knowledge: Any 2 units of English (Band 4).

Recommended studies: English Standard.

Interpreting and Translation

Assumed knowledge: Any 2 units of English. Applicants should be a native or near native speaker of Arabic, Chinese, Japanese or Spanish.

Languages and Linguistics

Assumed knowledge: Any 2 units of English.

Applied Data Science

This degree can be taken in conjunction with any Western Sydney University bachelor degree listed in this booklet. It is not a standalone program.

Assumed knowledge: Any 2 units of mathematics.

Recommended studies: Mathematics Advanced.

Applied Leadership and Critical Thinking

Assumed knowledge: Any 2 units of English.

Architectural design

Assumed knowledge: English Standard (or higher), and Science and/or Mathematics Advanced (Band 4 or above).
Business
Accounting
Applied Finance
Economics
Human Resource Management
International Business
Management
Marketing
Property
Sport Management
  Assumed knowledge: Any 2 units of mathematics, any 2 units of English.

Business (Dip)
Business (Pathway to Teaching Secondary)
  Assumed knowledge: Any 2 units of English, plus any 2 units of mathematics for Business (Dip) or Mathematics Advanced for Business (Pathway to Teaching Secondary).

Communication
Communication (Dip)
  Areas of study: Advertising, journalism, public relations, screen media.
  Assumed knowledge: Any 2 units of English.

Screen Media (Arts and Production)
  Assumed knowledge: Any 2 units of English.

Computer Science
Computer Science (Advanced)
  Areas of study: Cyber security, networked systems, systems programming and artificial intelligence.
  Assumed knowledge: Mathematics Advanced, any 2 units of English.

Construction Management (Honours)
Construction Management (Dip)

Creative Industries
  Areas of study: Advertising, creative writing, culture and society, digital cultures, English, enterprise innovation, graphic design, journalism, law and the creative industries, music, public relations, screen media.
  Assumed knowledge: Any 2 units of English.
  Recommended studies: Design and Technology, Visual Arts.

Criminal and Community Justice
Criminal and Community Justice (Dip)
  Assumed knowledge: English Standard.

Criminology
  Assumed knowledge: English Standard.

Cyber Security and Behaviour
  Areas of study: Criminology, cybercrime, data informatics, psychology, systems security.
  Assumed knowledge: English Standard.
  Recommended studies: Mathematics Advanced, Information Processes and Technology, any 2 units of science.

Data science
  Assumed knowledge: Any 2 units of English, any 2 units of science, Mathematics Advanced.

Design
Design (Dip)
  Design and Technology
  Assumed knowledge: Any 2 units of English plus at least two of Business Studies, Design and Technology, Engineering Studies, Visual Arts.

Visual Communication
  Areas of study: Data visualisation, design history, graphic design, illustration, interactive, motion design, photomedia, research methods, visual storytelling, web- and time-based design.
  Assumed knowledge: One or more of Design and Technology, Visual Arts.

Education
Education (Primary) – Aboriginal and Torres Strait Islander Education
  Available only to Aboriginal and Torres Strait Islander students.

Education (Primary)
  Assumed knowledge: Band 5 in three subjects, one of which must be English or Band 5 in 2 mathematics and science subjects and Band 4 in any 2 units of English.


Arts (Pathway to Teaching Birth–5/Birth–12)
  Assumed knowledge: Any 2 units of English (Band 4), any 2 units of mathematics.

Recommended studies: English Standard.

Arts (Pathway to Teaching Primary)
  Assumed knowledge: Any 2 units of English (Band 5), any 2 units of mathematics (Band 4).

Recommended studies: English Standard.

Arts (Pathway to Teaching Secondary)
  Assumed knowledge: Any 2 units of English (Band 5), any 2 units of mathematics (Band 4).

Recommended studies: English Standard.

Business (Pathway to Teaching Secondary)
  Assumed knowledge: Mathematics Advanced, any 2 units of English.

Graphic Design (Pathway to Teaching Secondary)
  Assumed knowledge: Any 2 units of English.

Recommended studies: Design and Technology, Visual Arts, Information Processes and Technology.

Health and Physical Education (Pathway to Teaching Secondary)
  Assumed knowledge: Any 2 units of English (Band 4), any 2 units of mathematics.

Recommended studies: Personal Development, Health and Physical Education (PDHPE) or Community and Family Studies.

Requirements for teaching courses are currently under review. Check with the University for specific requirements.
Science (Pathway to Teaching Primary/Secondary)  
**Assumed knowledge:** Any 2 units of English, any 2 units of science, any 2 units of mathematics.

Engineering (Hons)  
Engineering (Advanced) (Hons)  
**Areas of study:** Civil, construction, electrical, mechanical, robotics and mechatronics.  
**Assumed knowledge:** Mathematics Advanced (Band 5 or higher), any 2 units of science, any 2 units of English, Physics.

Engineering (Dip)  
**Assumed knowledge:** Any 2 units of English, any 2 units of mathematics and physics.

Engineering Science  
**Assumed knowledge:** Mathematics Advanced (Band 4 or higher), any 2 units of science, any 2 units of English.  
**Recommended studies:** Physics, Mathematics Advanced.

Entrepreneurship  
**Assumed knowledge:** Any 2 units of mathematics.

Entrepreneurship (Games Design and Simulation)  
**Assumed knowledge:** Mathematics Advanced, any 2 units of English.  
**Recommended studies:** Information Processes and Technology or Software Design and Development.

Geography and Planning  
Pathway to Master of Urban Management and Planning  
**Assumed knowledge:** English Standard.  
**Recommended studies:** Any 2 units of English, Geography.

Graphic Design  
Pathway to Teaching Secondary  
**Assumed knowledge:** Any 2 units of English, any 2 units of mathematics.  
**Recommended studies:** Design and Technology, Visual Arts, Industrial Technology.

Health Science  
Clinical Sciences  
Health Promotion  
Health Services Management  
Public Health  
Recreational Therapy  
**Assumed knowledge:** Any 2 units of English.

Health and Physical Education  
**Assumed knowledge:** Any 2 units of English and any 2 units of mathematics.  
**Recommended studies:** Personal Development, Health and Physical Education (PDHPE) or Community and Family Studies.

Health and Physical Education (Pathway to Teaching Secondary)  
**Assumed knowledge:** Any 2 units of English (Band 4).  
**Recommended studies:** Personal Development, Health and Physical Education (PDHPE) or Community and Family Studies plus English Standard.

Sport and Exercise Science  
**Assumed knowledge:** Any 2 units of English.  
**Recommended studies:** Any 4 units of science and/or mathematics.

Health Science (Dip)  
**Areas of study:** Health and physical education, health promotion, health services management, physical development, therapeutic recreation.  
**Assumed knowledge:** Any 2 units of English.

Humanitarian and Development Studies  
**Assumed knowledge:** English Standard.

Industrial Design  
Industrial Design (Hons)  
**Assumed knowledge:** Design and Technology, any 2 units of English, plus at least 2 units of Business Studies, Engineering Studies, Visual Arts.

Information and Communications Technology  
Information and Communications Technology (Advanced)  
Information and Communications Technology (Dip)  
Information and Communications Technology (Health Information Management)  
**Areas of study:** Cyber security, entertainment computing, health informatics, mathematics, mobile computing, networking, technology entrepreneurship.  
**Assumed knowledge:** Mathematics Advanced, any 2 units of English.

Information Systems  
Information Systems (Advanced)  
**Areas of study:** Big data, entertainment computing, health informatics, interactive analytics, mathematics, mobile computing, networking, social media analytics, technology entrepreneurship.  
**Assumed knowledge:** Any 2 units of mathematics, any 2 units of English.

International Studies  
**Assumed knowledge:** Any 2 units of English (Band 4).  
**Recommended studies:** English Standard.

Laws  
Laws (Combined)  
- Accounting/Laws  
- Arts/Laws  
- Business /Laws  
- Communication/Laws  
- Construction Management Studies/ Laws  
- Criminal and Community Justice/Laws  
- Criminology/Laws  
- Information and Communications Technology/Laws  
- Information Systems (Advanced)/Laws  
- Information Systems/ Laws  
- International Studies/ Laws  
- Science/Laws  
- Social Science/Laws  
**Assumed knowledge:** For Laws: Any 2 units of English or equivalent. For the other area of study: Refer to the relevant entry.

Mathematics  
**Assumed knowledge:** Mathematics Advanced, any 2 units of English.
<table>
<thead>
<tr>
<th>Program</th>
<th>Assumed knowledge</th>
<th>Recommended studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Science</td>
<td>Biology, Chemistry, Physics, any 2 units of mathematics.</td>
<td>At least two of Biology, Chemistry, Physics, Mathematics Advanced.</td>
</tr>
<tr>
<td>Advanced Medical Science</td>
<td></td>
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<tr>
<td>Anatomy and Physiology</td>
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<tr>
<td>Biomedical Science</td>
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<tr>
<td>Nutrition</td>
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<tr>
<td>Policing</td>
<td>Any 2 units of English.</td>
<td></td>
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<tr>
<td>Policing (Leadership Program)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology (Hons)</td>
<td>English Standard.</td>
<td>Mathematics Advanced, any 2 units of science.</td>
</tr>
<tr>
<td>Science</td>
<td></td>
<td></td>
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<tr>
<td>Advanced Science</td>
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<tr>
<td>Animal Science</td>
<td>Any 2 units of science.</td>
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<tr>
<td>Applied Physics and Astronomy</td>
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<tr>
<td>Biology</td>
<td>At least one of Agriculture, Biology, Chemistry, Earth and Environmental Science.</td>
<td>Geography.</td>
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<tr>
<td>Chemistry</td>
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<tr>
<td>Environmental Health</td>
<td>Any 2 units of science.</td>
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<tr>
<td>Forensic Science</td>
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<tr>
<td>Music</td>
<td>Any 2 units of music (Band 4).</td>
<td></td>
</tr>
<tr>
<td>Nursing</td>
<td>Any 2 units of English, any 2 units of mathematics, any 2 units of science.</td>
<td></td>
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<tr>
<td>Occupational Therapy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paramedicine</td>
<td>Any 2 units of English, Mathematics Advanced.</td>
<td>Physics, Chemistry plus Biology and/or Personal Development, Health and Physical Education (PDHPE).</td>
</tr>
<tr>
<td>Physiotherapy</td>
<td>Any 2 units of English.</td>
<td>Biology.</td>
</tr>
<tr>
<td>Planning</td>
<td>Any 2 units of English, Geography.</td>
<td></td>
</tr>
<tr>
<td>Pathway to Master of Urban Management and Planning</td>
<td>Any 2 units of English, Geography.</td>
<td></td>
</tr>
<tr>
<td>Podiatric Medicine</td>
<td>Any 2 units of English.</td>
<td>Any 2 units of mathematics, Physics, Biology.</td>
</tr>
<tr>
<td>Social Science</td>
<td>Any 2 units of mathematics, any 2 units of science.</td>
<td></td>
</tr>
<tr>
<td>Social Science (Advanced)</td>
<td>Anthropology, child and community studies, criminology and criminal justice, geography and urban studies, heritage and tourism, peace and development studies, sociology.</td>
<td></td>
</tr>
</tbody>
</table>

Additional selection criteria for some programs may include University Clinical Aptitude Test (UCAT ANZ), interview performance, and specific courses mentioned in the table.
Social Science (Dip)
Assumed knowledge: Any 2 units of English.

Social Science (Policing) (Dip)
Recommended studies: Any 2 units of English.

Social Science (Psychology)
Assumed knowledge: Any 2 units of English.
Recommended studies: Mathematics Advanced, any 2 units of science.

Social Work
Assumed knowledge: Any 2 units of English.

Speech Pathology
Assumed knowledge: Any 2 units of English.

Sport Development
Assumed knowledge: Any 2 units of English.
Recommended studies: Personal Development, Health and Physical Education (PDHPE), Business Studies, Economics.

Sustainable Agriculture and Food Security
Assumed knowledge: Any 2 units of science, any 2 units of mathematics.
Recommended studies: Biology, Chemistry, Agriculture, Geography.

Tourism Management
Assumed knowledge: Any 2 units of English.
Recommended studies: Geography and/or Business studies.

Traditional Chinese Medicine
Assumed knowledge: Any 2 units of English.
Recommended studies: Biology.

Combined/Double Degrees
For combined/double degrees check the prerequisites, assumed knowledge and recommended studies for both degrees. Contact the University for further details.

− Arts/Business
− Arts/Creative Industries
− Arts/Social Science
− Communication/Business
− Communication/Creative Industries
− Communication/International Studies
− Criminal and Community Justice/Social Work
− Design/Creative Industries
− Engineering (Honours)/Business
− Information and Communications Technology/Arts
− Information and Communications Technology/Business

Combined/double degrees in Laws are also offered. Refer to main subject entry for details.
Steps to uni for Year 10 students

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About this publication
This booklet is for students in Year 10 in 2021 to help them decide which HSC courses to take in Years 11 and 12. It lists courses UAC’s participating institutions will offer in 2024 with details of prerequisites, assumed knowledge, recommended studies and additional selection criteria.

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